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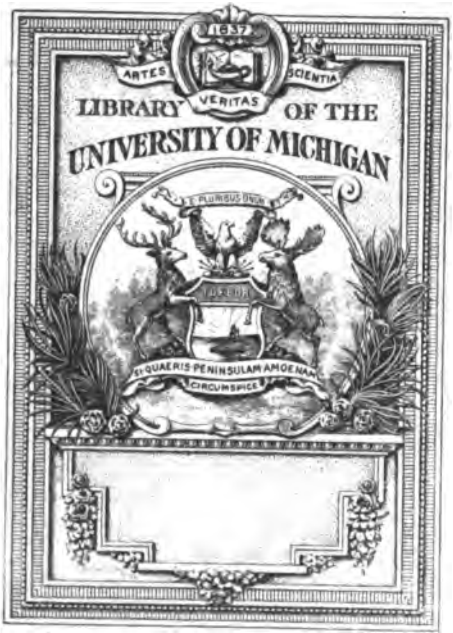
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Original Communications.

Infusoria.

BY DR. ROBT. F. NOYES, PROVIDENCE, R. I.

When the microscope threw widely open the field of observation and permitted man to see more, even, than he had anticipated, there was discovered by Leeuwenhoek in water collected in vessels a number of living organisms of minute size. The organisms in question, because of their microscopic size and animal organization, were, by their discoverer, termed animalcules. The name of infusoria applied to the same organisms is of later date, based upon the fact that they are found in decaying infusions of various kinds. From the time of their discovery, in 1675, to the present, no subject perhaps in general physiology has been more thoroughly discussed than that bearing upon the origin of the minute bodies under consideration. Physicists have entered into the discussion with zeal, in order that they might ascertain the origin of the infusoria; but more particularly that they might investigate the long vexed question of spontaneous generation. From the days of Aristotle, the sage philosopher, to the present, the doctrine of spontaneous generation has received the attention of the physicists. It has been accepted as legitimate and rejected as false according to the light of natural history, and oscillation of the scientific pendulum. But it is proverbial that at every revolution of the scientific world the doctrine under consideration has found itself restricted to narrower confines. In the days of the Grecian philosopher referred to, it was supposed that clams, oysters and shell-fish generally, were produced from the mud in which they were found; that wood-ticks came from the wood which they inhabited, and that book-lice originated in the leaves of old manuscripts.

The discovery of the Mammalian egg in 1827, and the consequent inauguration, some later, of the doctrine "*Omne Vivum ex Ovo*" did much toward settling the vexed question of spontaneous generation. But while the microscope was settling the modes of origin, and the manner of reproduction of many species, it was at the same time discovering new species whose origin and modes of reproduction are so intricate as to baffle the scientific investigations of to-day.

The present status of science is such that the existence of the doctrine of spontaneous generation is entirely dependent upon the uncertainty of the modes of origin of the infusoria. Conclusively show that the minute organisms in question obey the ordinary laws of reproduction, and the doctrine of Archebiosis falls at once to the ground. The question of the origin of the infusoria was discussed at length in 1748, by John Tubervill Needham and Lazarus Spallanzani. The position taken by Mr. Needham and the argument employed may be briefly stated. He originated the idea that the infusoria originated from decaying organic matter. To prove his hypothesis, he placed "hot" from the fire into phials and tightly corked them, several organic infusions. In a few days the phials teemed with life. Spallanzani repeated the experiments, raised the temperature to the boiling point, and continued the ebullition for one hour. Subsequent examination revealed no infusoria. But, says Mr. Needham, the prolonged boiling has not only killed the germs, but has so changed the organic infusion as to prevent the ordinary and legitimate result. This difficulty was soon elucidated by Spallanzani, who conclusively showed that the prolonged boiling did not prevent the appearance of the infusoria when atmospheric air was admitted. Perhaps the absence of air in the hermetically sealed vessels was the sole cause for the non-appearance of the infusoria, and Mr. Needham claimed that a change of air is essential for the process of organization. To destroy the atmospheric germs, and allow of a free circulation of the air now became the problem. This was accomplished in 1836–7 by Schultze and Schwann, by two different methods. Schultze took an ordinary glass flask half filled with an organic solution, subjected it to the boiling temperature, and then renewed the air by allowing it to pass through glass bulbs, some of which contained sulphuric acid, others liquor potassae. Schwann took a similar solution and provided for the free introduction of air by allowing it to pass through tubes heated to six hundred degrees. The specimens subsequently examined presented no evidence of animal life.

At this time it was conceded that the atmosphere was loaded with minute particles of matter. The presence of germs or spores was hypothetical. The dust rendered visible by the passing sunbeam, and the products collected upon mirrors in secluded places were microscopically examined, when the experimenters found that starch corpuscles, dust particles and debris of clothing formed the greater mass of the dust in question. Air taken from the summit of Mont Blanc amid eternal snows, from the scorching Egyptian plains, from the busy markets of Constantinople, and snow-flakes caught in the air were melted, all were subjected to a critical microscopic test with very negative results as regards the presence of organic germs or spores. Only a few in reality existed here and there; if many were seen by some, doubtless the imagination was responsible for this multiplicity.

In 1858 M. Pouchet, of France, maintained the doctrine of spontaneous generation, claiming that in the case of the infusoria it had succeeded in his hands. He announced that he had repeated the experiments of Schultze, but with different results, and from a boiled infusion of hay he claimed the production of a fungoid vegetation. He collected the dust-like particles of the air, closely examined them, and concluded that the atmosphere was poor in organic germs, and that the number was entirely inadequate to account for the abundance of the infusoria in the solutions tested. The subject at this point was then taken up by M. Pasteur, an eminent chemist. He was determined to show whether the atmosphere, in coming in contact with the solutions, brought with it, besides oxygen and hydrogen, anything connected in anyway with life. He took sixty glass flasks, filled them to one-third of their capacity with a solution of yeast. He at once raised the solution to the point of ebullition and hermetically sealed the flasks. Twenty of them he opened and resealed about the level of the sea. Twenty at an elevation of twenty-five hundred feet, and the remaining twenty at an elevation of six thousand feet. Upon examination it was found that of the first twenty, eight presented evidence of living organisms; of the second twenty, five teemed with ininfusoria, and of the third twenty, a single one only presented similar evidence.

These conclusions would seem to accord with the doctrine of atmospheric germs, for it is fair to suppose that the atmosphere is more thoroughly loaded with organic spores or germs near the surface of the earth than it can be at various elevations above the level of the sea. But M. Pouchet performed similar experiments with different results. The debate between these two eminent gentlemen, members of the Academy, became so enthusiastic that each stated his position in definite terms.

M. Pouchet said "I assert that, from whatever region of the globe I take a quantity of atmospheric air, if this air be placed in contact with a putrescible liquid in hermetically sealed vessels, the liquid will invariably become filled with organisms."

M. Pasteur said "It is always possible to obtain, in a particular locality, a notable volume of atmospheric air, which, without having been subjected to any physical or chemical modification, is nevertheless incapable of exciting any change whatever in a putrescible liquid."

The position of one being so diametrically opposed to that of the other the Academy appointed a committee of investigation. M. Pasteur took sixty flasks, as in the first experiment; of these, nineteen were opened and sealed in the amphitheatre, nineteen at the top of the dome of the same building, and eighteen a few miles from Paris in a grove. At the expiration of four months an examination demonstrated that thirty-three flasks had remained entirely unchanged. Hence, it became the duty of the committee to announce that the assertions of M. Pasteur, contested by M. Pouchet, were of the utmost exactitude.

The experiments of Prof. Wyman may be of interest in this connection. Indeed, it may be said that the investigations of Spallanzani in 1776, and those of Prof. Wyman in 1867, have contributed more towards settling the question of the origin of the infusoria than all other experimenters combined. Spallanzani showed that a prolonged boiling did not so change the solutions as to prevent the appearance of the infusoria when at-

atmospheric air was admitted. Prof. Wyman clearly showed that the number of the infusoria was directly in proportion to the degree of heat employed, and to the time the ebullition was continued, and that the boiling could be sufficiently prolonged as to entirely prevent the appearance of the infusoria.

It has generally been conceded that a temperature of 212° for a short time, is sufficient to do away with the vitality of all germs and spores. That such a concession is without sufficient reason is evident, both from general principles and from specific investigations. It is well known that one species will thrive in a temperature which is fatal to another, and that the germination of seeds, and the unfolding of cells is entirely dependent upon the circumstances under which they are placed. Prof. Wyman showed that a short boiling diminished the number of the infusoria, and that a prolonged boiling did away with them entirely in the solutions tested. The experiments of M. Pouchet are also opposed to this view, for he found that the seeds of the Brazilian Marecargo, after four hours boiling, retained their physical properties, and when planted germinated and produced progeny in the likeness of their parents.

The question of the origin of the infusoria, both at the time of their discovery and in 1838, when Ehrenberg published his magnificent work with colored plates was different than it is at the present day. Then the origin of the infusoria as a class was the question. To-day it is the origin of certain individuals of that class. Science, as time has advanced, and as the powers of the microscope have increased, has caught many of the infusoria in their reproduction, and has removed them to other species so that to-day a very small portion of the infusoria only remains without a satisfactory origin. The origin of the ciliated infusoria constituting more than three-fourths of all infusoria as now understood is no longer a question. Science has settled their origin. They are not of spontaneous development, bnt many of them are produced from eggs.

The question of the present day has reference to those infusoria, which are situated upon the very verge of the microscopic world. Many of these present no evidence of an internal organization. They are minute specks indicating their vitality by their heterogeneous motions. Of the two genera most frequently observed, one has received the name of Bacterium, the other of Vibrio. It is the origin of these and one or two others, less common but similar genera, which is in dispute to-day.

Shall we accord to these minute bodies a spontaneous origin, or shall we urge the doctrine, or some modification of it, of "*Omne Vivum ex Ovo?*" In refutation of their spontaneous origin, it may be said that the reproduction of all species, except a few genera of the infusoria, is accounted for in some other way. The experiments of the past are by far more hostile than favorable to the doctrine of their spontaneous origin, and an analysis of the experiments almost conclusively shows that when the temperature has been sufficiently high, and sufficiently prolonged to destroy the germs and spores, no infusoria have manifested themselves in the solutions under consideration. Judging the future by the past, it is fair to presume that science will soon explain the modes of origin of the genera in question.

It may be objected that an argument prospective and analogical is not the most valid, and that it is immaterial how the other species are developed, or how this species under consideration may have originated. But it may be urged that it is material and really the question at issue, how the Bacteria and Vibrios have appeared upon the globe. In this connection it may be said that to establish their spontaneous origin, it is incumbent upon its adherents to show conclusively that the genera in question have originated in hermetically sealed vessels containing infusions, which could have by no possibility contained germs or spores. Until they have done this they must be content to rest their doctrine upon hypothesis simply.

Following the recognized legal law of preponderance of testimony, the unbiased observer at present must reject the doctrine of spontaneous generation, remain neutral, or advocate the doctrine of "*Omne Vivum ex Ovo.*"

Report of a Case where Castration was Performed for the Radical Cure of Spermatorrhœa.

READ BEFORE THE DETROIT ACADEMY OF MEDICINE BY F. A. SPALDING, M. D.

A little more than two years since I was consulted by a gentleman of this city, in reference to the condition of his son, then fourteen years of age, who was suffering the most deplorable consequences of spermatorrhœa, induced by masturbation. The previous history, as given by the father, was as follows: The mother having died during the child's infancy, he was entrusted to a nurse, who continued to superintend the care of the child until he was eight years of age. The father at that time having again married, the boy was brought home, and it was very shortly discovered that he was practicing masturbation, and that even at this early age (8 years) although of course there were no seminal emissions, still the excitement of the genital organs was already a confirmed habit. On interrogating the nurse she admitted that she had taught, or allowed the child, when only six months of age, to play with the genital organs to ensure quiet; and that the practice had been continued ever since.

The impending danger which threatened the boy now dawning upon the father's mind, prominent medical aid was secured, and no pains spared to arrest the trouble, but without avail. In addition to medicinal remedies, mechanical appliances of various kinds were employed but proved equally futile. Without interruption the trouble persistently continued until the boy reached the age of twelve years when seminal emissions began to accompany the almost continual genital excitement, the emissions speedily becoming diurnal as well as nocturnal.

It was now that the drain began to tell upon his physical and nervous systems, with physical debility, and more or less constant pain in the head. The boy became listless, depressed in spirits, forgetful, and almost totally indifferent to all moral obligations—unable longer to attend school and compelled to be kept under the most strict surveillance at home, for the youth would halt upon the street, and regardless of all passers by silently to indulge in his all-absorbing passion; and thus the malady progressed until the boy who up to the age of twelve years was possessed of average intellectual powers, was at the age of fourteen a fit subject for the insane asylum.

Such was the aggravated nature of the case when I was first consulted.

After the faithful employment of the ordinary anaphrodisiac remedies, as well as various local applications, resulting in little or no beneficial effect, in view of the fact that medical treatment almost continually employed since the boy was eight years of age had availed nothing toward arresting the disease, and also that the only other alternative left him was the insane asylum, and his removal thither could not at most be postponed beyond a few months, I considered that as a last resort to save him from imbecility and the insane asylum, castration although a desperate measure was not only justifiable but advisable, and accordingly after the most mature deliberation, advised the operation.

Disliking to assume the entire responsibility of this extreme measure, especially since we have little precedent for it in medical literature, I called in consultation Dr. Geo. P. Andrews of this city, who fully concurred with me in the advisability of the operation.

I also consulted by letter Dr. Gray of Boston, who was already familiar with the boy's previous history, he having been the medical adviser of the family for several years. He also expressed his entire approbation of the measure proposed. I also consulted by letter Dr. Van Deusen, superintendent of the Kalamazoo Insane Asylum, making inquiry relative to the prospect of improvement if removed there, but received little encouragement of benefit; he also sanctioned the proposed operation.

With the sanction therefore of the gentlemen above mentioned, on the 15th day of Sept., 1874, I performed castration, removing both testicles, in the presence of Drs. Johnson, Howard, Hibbard and Pearly. The operation I shall not stop to describe, it being performed after the manner described in works on surgery, simply stating that the wound healed favorably, one ligature coming away on the sixteenth day and the other on the twentieth day after the operation.

At the father's suggestion, with my endorsement, the boy was at once removed from all former associations, and most fortunately a place was secured in a gentleman's family in the country and of whom it is but due to say that not only has no pains been spared, but also that the most praiseworthy and untiring efforts to aid the mental and moral developement of the boy have been exerted. He has been kept at school a portion of the year, and at home has been learned business habits and surrounded by every home influence tending to elevate the mind.

When the boy went there, two years ago, immediately after the operation, he had the simplicity of a child eight years of age, and but a step removed from imbecility; but it was almost immediately apparent after the operation that a dark cloud had been removed, and the boy very soon began to manifest an interest in life unknown before. He applied himself to reading and study with a creditable amount of enthusiasm; the most marked and rapid improvement was discernible in the letters written to his father. He has acquired business habits and althongh perhaps not an average boy of his age—unable in the short space of two years to remedy entirely the defects caused by the blank in his life—is from this time competent to earn a livelihood.

Compare this with the rapidly developing imbecility of two years ago, and who will dare to say the end has not justified the means? The result has exceeded my most sanguine expectations, and I have recorded this as a test case upon which I shall not hesitate to base my treatment in the future. While I wish to be understood as advocating this measure only as a dernier resort, it is evident that it should not be deferred until the mind is too much impared, for the *cause* being removed, further mental deterioration is arrested; the patient's intellect, which has been narrowed down to one channel is left free to expand, with a reasonable possibility of developing the fragment of mind yet remaining, while the physical defect proposed could not weigh against the mental imbecility so rapidly developing. Indeed, in my judgment, no physical defect can compare with loss of mind.

Cases in Practice.

BY T. CURTIS SMITH, M. D., MIDDLEPORT, O.

INTESTINAL OBSTRUCTION.

In December, 1874, I was called to Mr. L. German, æt. 32, miner, of general good health—stout, short build, temperate, dark complexion. He had been ill four days, during which time it had been found impossible by his physician (whom he had discharged) to secure any movement from the bowels. He was suffering intense abdominal pain, extreme gastric irritability, meteorism very great, pulse 120, weak, and remittent; skin hot, tongue very red, great thirst, but everything swallowed was immediately rejected. I could distinguish no tumor anywhere in the abdomen, but found most tenderness about the ileo-cœcal valve. ℞ Atropiæ Sulph grs j Aquæ ℥i, M. S., take four drops every two hours until the throat becomes quite dry, then repeat every four hours. To have opium q. s. to relieve the excessive pain, and to swallow pellets of ice ad libitum. Securing a Davidson's syringe, I had him placed on his knees with his face down on the bed, the hips being elevated very high by two pillows being placed under his knees. I now pumped into his bowel a half bucket full or more of tepid water which he retained for thirty minutes, still remaining on his knees, with his head low. When this came away nothing came with it, but it had a distinct fœcal odor. This was repeated again in an hour, when two small hard fœcal lumps came away. I then left, ordering the enema to be repeated every two to four hours, according to the strength of the patient. On returning twelve hours later, found him much easier; and that after the two last injections (fourth and fifth) considerable hard, crumbled fœcal matter had been voided, but no flatus had passed off, and there was evidence that the obstruction was not removed. As the stomach was much more retentive, I added to the previous treatment: Ext. Nux Vom. gr. ss. every four hours, and Sulph. Magnesia scruple ij every hour; continued the Atropia, and used the opium as pain demanded; enema every four hours. This treatment was continued for thirty-six hours without change. After each enema a small quantity of fœcal matter came away. At the end of the time (36 hours) he suddenly felt an irresistible desire for a movement, when, being placed over the vessel, he voided an immense quantity of very black fetid fœces, and immediately expressed perfect relief from all trouble except weakness, which was very great, as he has taken no food that he could retain for six days except a few glasses of milk within the last 36 hours. His recovery was rapid from this time onwards.

The above illustrates my practice in all cases of obstruction of the bowels, and the plan, if well executed, will generally succeed. There can, as I believe, be no reason for giving severe or very strong cathartics in obstruction from local accumulation. These had been thoroughly tried for four days, prior to my first visit, and, as usual, had only added to the patient's distress, by increasing gastric irritability and congesting, probably inflaming the small intestines. The atropia was given partly because it is one of the best cardiac and respiratory stimulants, and partly for its stimulating effect over the intestinal mucous membrane.

The cathartics being at first discarded, opium to relieve pain, is also indicated for its additional effect of relaxing any muscular spasm that might exist in the fibrous coat. The object of the large enema, so often repeated must be apparent to all. The magnesia sulphate was given in small and often repeated doses, on account of its well known power to liquify hardened fœcal masses anywhere in the alimentary canal, but even this cannot be successfully used while the stomach is very irritable. The nux vomica was used to give tone to the general nervous system, and the ice to quiet the irritated stomach. Whether the theory is correct or not, the results of this plan of practice have, as far as I know, always been satisfactory.

A few days after seeing the above case I was called to the country eight miles to see Mr. S., æt. about 54. His case had been very similar in its symptoms to the one above. The drastic cathartic plan had been thoroughly tried, in this case more by the family than by his physician. As the patient was moribund when I arrived, it was decided not to attempt anything further than to smooth his path to the grave as much as possible. In this case invagination may have existed. If so, cathartics were contra-indicated. They were, as used, none the less hurtful if it was obstruction. In either case the very large enemata given with the hips highly elevated might have effected relief, and would most probably have succeeded had it been obstruction, especially if used in connection with other proper treatment. The regular medical attendant in this case was called too late to afford relief.

SPONTANEOUS SOLUTION OF A CATARACT.

In April, 1870, Mr. D., æt 68, came to my office complaining of intense pain in the right eye, which was cataractous. The conjunctiva was much congested. ℞ Atropiæ sulph. grj aquæ ʒii M., S. drop into the eye every two to four hours as pain may require. A half hour later, his son came hastily to the office, stating that the "medicine had set his father crazy" with pain, that it was "vastly worse than before using it." This seemed a little singular to me; so I went to see him. His ocular pain was extreme. Gave morphia hypodermically, which moderated his suffering promptly. An examination of the eye now disclosed the existence of posterior synechia. The atropia had not very perceptibly dilated the pupil in consequeuce of the adhesions of the iris to the lens. A month later it was noticed that the cataractous lens was disappearing. Its slow but gradual solution continued, until two years later he could see objects between himself and the light. He can, with that eye, at present count fingers or small objects at a distance of six feet, and can distinguish the color of a horse a hundred feet. The cataract has not completely, but quite disappeared. It is probable that with a proper glass he could see quite well with it; but having one good eye he does not especially miss the one that is affected.

PIN IN THE ŒSOPHAGUS.

In November of 1876, Miss M., came, stating that she had swallowed a pin accidentally. As it was beyond reach, and its location indefinite, I ordered an emetic of zinci sulph. She stated, however, that she could feel it about the middle of the neck.

The emetic acted promptly, but no pin appeared. Two hours later, saw her at home, with my friend Dr. E. C. Fisher. Various efforts were made to remove the offending pin, which now seemed to be located about four inches below the throat and evidently sticking deeply into the tissues. The pain in the left side of the neck and shoulder seemed quite severe and was increased and spasmodic on making efforts to swallow. All efforts having failed to secure it or push it aside, I went to my office, and covered a large sponge probang with four layers of mosquito netting. This we thought would remove or dislodge the pin. On passing it down the œsophagus, no resistance seemed to be offered by the pin, but on withdrawing it, there was felt at one point a distinct resistance. No pin, however, came up with the probang; but the patient expressed immediate relief, and after the soreness caused by the efforts to secure the pin, and by the pin itself had passed off, no further trouble was experienced. It is probable that the pin was pushed into the tissues away from or outside of the channel, where it now remains buried; but it may be heard from in some other region in the future.

TAPEWORM.

Mr. S., æt 34, came to me last July, bringing with him several large joints of a tapeworm, which he had passed, to inquire what they were. Being desirous to be free from the "creature," he was directed to fast 24 hours, then to eat an ounce of ground pepo mixed with honey, which was to be followed in four hours with two ounces of ol. ricini and ol. terebinthinæ ʒi all taken at one dose. In a short time his bowels were freely moved, when it was found that he had passed a tapeworm twenty-three feet and four inches long. Since that time there has been no further trouble from the "creature."

Reports of Societies.

Joint Meeting of North Western Ohio, North Eastern Indiana, and Southern Michigan Medical Societies, held at Odeon Hall, Toledo, O., Nov. 28th, 29th and 30th, 1876.

REPORTED BY DR THOS. WADDLE, TOLEDO, O.

FIRST DAY.

At 11 A. M., Dr. W. W. Jones, Chairman of the Committee of Arrangements, called the meeting to order; after which the Rev. Dr. Beacon offered prayer. Dr. Forbes, President of the Toledo Medical Association then delivered the welcome address.

The Committee of Arrangements recommended that the respective Presidents of these Associations occupy the platform. That of the oldest organization to preside. The Secretaries of the Societies act as Secretaries of the Joint Meeting.

Meeting adjourned.

AFTERNOON SESSION.

Presidents Waddick, Woods and Southworth on the platform; the former presiding.

Dr. Southworth read a paper on Puerperal Eclampsia dividing the cases into the Apoplectic, Hysteric and Anæmic.

The Apoplectic always accompanied by serous infiltration of the tissues and œdema, with symptoms of toxæmia from absorption of uric acid. Temperature 101 to 105°. The patient is always attacked before or during, and never after labour.

The Hysteric form is always preceded by hemicrania, and is more frequently the result of mental excitement, anxiety and depression. The attack occurs during, or soon after confinement.

In the Anæmic, the secretions are normal—no œdema—temperature generally below normal, yet this form is attended by the highest mortality.

The author especially insisted on this difference in the type of convulsions in contradistinction to Prof. Barker. His treatment of the Apoplectic form is 20 to 30 drops of Norwood's tinct verat virid., repeated if necessary, in half an hour—Cathartics, such Pil Hydrarg, Croton oil with enemata, Diuretics, Citric acid and flowers of benzoin.

If the cerebral congestion continue, leeches behind the ears , or blisters over the nucha, or, lastly, cautious bleeding from the arm.

In the Hysterical, chloroform inhalations followed by morphia ; or, Pot. Bromidi, gr. xx and musk 5 gr.

In Anæmic eclampsia stimulants and restoratives are essential. Enemata of brandy ℥ss, tinct opii and liquor strych. aa Mv, tinct digitalis fol. Mx, with beef tea, or other vehicle every 2 to 4 hours. Moist heat to the abdomen. As soon as the patient can swallow, give the following prescription, one teaspoonful every 2 to 4 hours: ℞ ferri pyrophos. ʒi, liquor strych. and tinct. digitalis aa ℥i, aqua menth piper ℥j, mix. In the intervals, wine, egg-nog, beef-tea, etc., etc. Emplastrum belladonna, over cervical and dorsal vertebræ—delivery should be completed as soon as possible.

Dr. W. W. Jones remarked that eclampsia was accompanied by two factors, albuminuria and headache. The former he always found present in his cases. He believed that in nearly every case uræmia was the cause. We might have uræmia without the albuminuria ; yet, we do not necessarily have convulsions every time we have uræmia. In 1864, Scarlet Fever was epidemic in this city. He reported at that time six cases of convulsions in patients aged from 6 to 16 years. Every case had albumen in the urine. Recent investigations have shown that cholesterine in the blood may be the cause of convulsions. He granted there was much obscurity still about this disease, but thought that the urine should always be examined for albumen and urea.

Dr. C. M. Woodward was called in consultation, to see a young pregnant woman who had had four convulsions. A few days after she was delivered of a fine healthy child. The treatment was bleeding to 12 oz. followed by 60 gr. of chloral hydrate at once. Epsom salts were also freely given. She went into a profound sleep. The salts were given to eliminate urea.

Dr. Entrekin believed Dr. Jones' views were sound. Urea acting on the nervous system caused the convulsions; increased blood pressure on the kidneys produces their congestion; found in every case of fits albuminuria, more or less.

Had succeeded in lessening the convulsions by turning the patient on the side, and thus relieving the pressure on the aorta.

Dr. Ridenour liked the paper because it was novel, and the causes well classified; thought albuminuria more a sympton than a cause of convulsions. Agreed with a previous speaker that urea was a common cause, also cholesterin. The agency of the liver has not been properly recognized, and too much has been made of albuminuria. Cathartics, and particularly rochelle salts are the most valuable means of eliminating those poisons. In a recent case where convulsions were threatened, the suppression of urine and headache were promptly relieved by this remedy.

Dr. Williams had had a case where the convulsions had continued the entire night, and when first seen in the morning was comatose; the child's head was found impacted. She was delivered, but remained comatose for three days and recovered.

Two very recent cases were treated with morphia, chloral and chloroform, and delivery with forceps; they recovered.

Dr. Southworth replied: had never seen a pregnant woman in convulsions, who did not also have albuminuria. But in the second form of convulsions it had never been found in a single case. Had never used chloral hydrate, but had used chloral and camphor. It had no effect. Since using the veratrum viride had never used morphia.

The chairman of the committee of arrangements having announced the receipt of a telegram from Dr. Reamy, announcing that owing to changes of time on the railway, he had got left, consequently could not be present to deliver his lecture as announced, a vote was taken to decide whether the Societies would hold an evening session, or accept the cordial invitation of the Sisters of Charity to visit and inspect their new hospital. It was decided to hold an evening session.

Dr. Smart read a paper on chronic uterine displacements, laying stress on the following points: That the vaginal column with its perineal base was the principal agent in hindering prolapse. That flexions were a disease of the uterine wall, either congenital or acquired. That versions were dependent upon increased bulk of the fundus with relaxed cervical attachments. That all displacements, especially prolapse and versions involve in their causation increased weight and bulk of the organ, deficient and relaxed support, and increased superincumbent pressure. That treatment to be effective, must act in the line of causation, viz: The reducing to a normal standard the bulk of the uterus, and supplying, as far as practicable, sufficient support. That mechanical support did none of these things, and was of little value, except as an auxiliary temporary expedient; the only suitable forms being such as act upon the lever principal. That the indiscriminate use of *Argent Nit.*, in the treatment of chronic congestion, and engorgement of the uterus is productive, many times, of mischief and although a valuable agent in some stages of uterine disorder, the cases for its use should be carefully selected.

Dr. Thos. Waddel, (Toledo). In considering the etiology of flexions, the author had truly said that a change in the density of the uterine tissues is an important factor. Yet another not less important, had been omitted, viz: The elongation of the connective tissue existing between the uterus and its covering peritoneum.

He would also object to the negative way in which he referred to pessaries as liable to mislead. If pessaries were found "dust covered in every physician's office," the essayist had also given the reason viz: their want of adaptation. Not only should the pessary be especially suited to each case, but preparatory treatment was also necessary. A few days ago he saw a case of retroflexion, where the fundus could be felt below the posterior cul de sac, almost as tender as an abscess. It could be replaced. Now should a Hodge pessary be introduced at once it could only do harm. But the fundus was elevated, posterior cul de sac packed with cotton-wool saturated with glycerine, and after this was continued for days, and tenderness subsided, an "Albert Smith" was introduced, and the patient has now neither pain or ache. Believed this replacement and support by relieving the stricture of the vessels an important element in the cause.

Dr. Hamilton said this class of diseases was common, very common. These suffering women were found everywhere, and he believes maltreated; never used pessaries, but raised the displaced organ, and used a pessary of cotton-wool or tow saturated with oil and turpentine. Last year a lady came from New York city broken down, the uterus was displaced. She was put on this treatment for six months, and was cured.

Dr. Minchin thought Dr. Smart's paper good. It is a disease we know little of. Not long ago attended a *post mortem* of the body of a woman who had been treated for five years for uterine disease. The organ was found healthy. In another case he got a $50 fee for cutting out a pessary, which another practitioner had introduced. The safest and best way to raise the uterus was by tonics strengthening the ligaments.

Dr. Entrekin said that when any disease had many remedies it was hard to cure. Nineteen-twentieths of the children are ruptured on account of the pressure of the abdominal bandage. So a woman may endanger herself if she puts the support high up, while if applied low down it lifts up the viscera. He had accomplished this well by means of moleskin plaster. It is easily applied, and gives great relief. Has recently thought plaster of paris bandage, cut behind and laced, would accomplish this well. Lifting the uterus daily does not do any good for it falls again. A pessary is useful to support the organ.

Subinvolution is a common cause of displacement, as are arising too early, and sexual intercourse too soon after delivery.

Dr. C. H. Reed could not see how any pressure against the abdomen could fail to indirectly press on the uterus; believed all abdominal supports a failure; but a more rational way is to loosen the corsets and clothing.

Dr. Bigelow thought this discussion and his experience in diseases of women, reminded him of the army. A cavalry-man with varicocele was examined in the presence of the hospital steward, to whom the Dr. remarked upon the resemblance of the condition, to a handful of worms. In less than one hour after, fifty cavalry-men came to be examined for "worms in the bag." So it was with the women and diseases of their womb. Only the other day a lady informed him, she knew she had ulceration or falling of the womb, but there was nothing the matter with that organ. Women are made for propagation. They revolve around the womb. If they lived as nature intended, believed their sexual disease would disappear. That the vagina could support the womb, as stated by the essayist, he did not believe; if taken out of the body there is not strength enough in its tissue to stand alone.

Dr. Brinkerhoof thought there was a tendency to extreme views on the subject. Ridicule and a want of knowledge may go together. There are many women suffering from these diseases, and it deserves study. Unmarried women are often subject. Pessaries are very valuable in some cases, but his experience with tannin as a local application was not favorable. General treatment he thought as important as the local.

Dr. Crain did not think the changes in the peritoneum incident to pregnancy was a cause of flexions, for the investing peritoneum undergoes involution equally with the uterine structure. Regarded the pinning of an obsetric binder tight at the lower hip portion and loose at the upper part, an important point in the prevention of displacements after labor. The remarks of a previous speaker, that pressure on the abdomen forced the womb downward, he did not think sound. Whether it will do so depends on the point and direction of the pressure.

Dr. P. Chamberlain commended the paper highly. There was a general tendency to ridicule this subject. Because a few so-called specialists were imposing on the community, it does not do to ridicule the subject, which demands a more careful study of its treatment. Many women have really serious and painful diseases, and it does not do to turn them off with ridicule. He regarded the perineal pad as important in puerperal bandaging; it keeps the bandage from slipping up, and gives an agreeable support to the weakened parts; insists on its use for weeks after delivery.

Dr. Nolan insists on his patients lying on each side alternately after labor; never on the back. He has used no bandage for fifteen years past.

Dr. Kitchen had used no post partum bandaging for twenty years. Pessaries are often worse than useless. Treats his cases on general principles. The country is full of frauds in in this branch of practice. This city has several of them, and when he was down in the hills of Pennsylvania, they were there also. Had known one of these practitioners to insist on a vaginal examination, in a case of simple conjunctivitis, in a lady who was otherwise perfectly well. Yet the same practitioner left a placenta in the uterus for seven months, which was finally expelled by Dr. K., giving the woman ergot.

Dr. G. H. Chapman concurred with the essayist in the influence of the vagina in sustaining the uterus. Witnessed an operation by Dr. Jackson, of Chicago, for the cure of procidentia; elytrorrhaphy left a firm ridge in the vagina, which perfectly cured the prolapse.

Dr. Smart replied: the influence of the anatomical condition of the peritoneum, in the puerperal state in causing flexions, he regarded as nil, for the reason that flexions were more common in women who had never been pregnant.

His paper made no pretense at details, but only pointed out the indication to be met in treatment. Some of the speakers had found good results to follow the use of cotton-wool and glycerine, tannin, pessaries, and spirits of turpentine with oil; he admitted their value as adjuncts in some cases. Cotton-wool and glycerine was a powerful depletor, but could not furnish support to a displaced womb.

The abdominal bandage is beneficial when made to press from below, and then only acts while the patient is on the feet. Gynæcology had been, and is now, to some extent, by the general profession, held in disgrace just as obstetrics once was.

EVENING SESSION.

Dr. Minchin, of Hudson, read a clinical history of a case of gun shot wound of the ankle joint.

Dr. Chamberlain remarked that the paper was a contribution to conservative surgery and reminded him of a case which he had seen after the battle of Antietam; the leg had been shattered by a bullet and received no attention. A few days after it was found that nature had, by means of a melting process, made a complete amputation. It was let alone and a very good stump was the result.

Dr. Stieman thought Dr. M's. doses of tinct. ferri were too small; would give ʒss. to ʒi. doses. In a case of severe injury to the thigh he gave 30 grs. of quinine with tinct. ferri ʒi every three hours, with the best results.

Dr. Entrekin had seen bad effects on the kidneys from such large doses of the iron.

Dr. Bigelow thought the doses of quinine given by Dr. S. too large. Dr. VanBuren gave ʒi. doses during the Florida war. Complaint was made and a committee of the American Medical Association reported that the maximum dose was 30 grs.

Dr. Albert Fisher read an interesting paper on Sanitary Science; dwelling particularly on the means which had been employed by the Board of Health, of Toledo, in stamping out small-pox. And the value of disinfection and isolation of cases.

Dr. Nolan thought too much credit had been given to the Board of Health, and not enough to the physicians who gave their time and attention to secure perfect vaccination.

Dr. Jenks. Every doctor should be a member of a universal Board of Health. The city Board of Health will not be perfect until it is able to prevent the spread of scarlatina and similar diseases as well as small-pox; the time will come when those diseases will be stamped out. The health boards should look after the construction of houses. A modern house has the water closets and other conveniences all within the same walls—and no trap can prevent the escape of poisonous gases. Hence the importance of ventilating house drains. Believed the ordinary privy will disappear and earth closets take its place.

In the country no typhoid fever should exist; yet owing to the situation of wells, vegetable cellars and privies the causes were so prolific that country residents are common victims of this disease. It was the duty of every physician to advise his patients how to prevent disease.

Dr. W. W. Jones facetiously remarked on the inconsistency of physicians preventing disease when he had scarcely any business. There are about 40 regular practitioners in this city, and there is not one who could not do three times the business he now does. The death rate of children is 60 per cent; if it was not for children's sickness we could not live; the president himself could not stand it. Brewery feed also helps us out. He was surprised to find his friend from Detroit advocating the taking of the bread out of our mouths.

He had made several attempts to get a central state medical officer appointed, but had always failed.

Dr. Fisher replied.

Dr. Hal. C. Wyman read a paper on Caries of the Spine, in which he drew particular attention the following points:

1st. Trauma and not tubercle a cause; 2d., early attempts of nature to cure the primary injury (illustrated by photograph); 3d. Earliest symptoms, pain, etc., usually attributed to other causes, and the most favorable time for cure allowed to pass; 4th. Changes in contour of vertebræ, essential to cure, obviated or prevented by certain methods of treatment, viz: extension by apparatus; 5th. Treatment: counter-irritation by caustics or cautery, rest, diet, restoratives.

He endeavored to show that the disease could be diagnosed sufficiently early to apply treatment that would prevent serious deformity or fatal termination; that the great trouble was in our misinterpreting the primary symptoms, and allowing six months or a year to pass in treatment addressed to neuralgia, rheumatism, or uterine backaches.

Dr. Ridmour thought we had run too much to the mechanical treatment of the disease. The essayist did well in calling attention to the importance of its early recognition. He had during the past year a case which exemplified this fact. A boy received a blow on the back from a playmate at school. Soon after, pain, tenderness on riding, and other symptoms of the incipient stage of this disease were manifest. Blisters were applied for three weeks, and resulted in a cure of what he believed would have been Pott's disease.

SECOND DAY.

Dr. Hiner, of Lima, O., read a paper on Therapeutics.

Dr. W. W. Jones, thought authors had not sufficiently insisted on the element of rest; it is of great importance. Spoke of the value of strapping the chest in certain forms of thoracic disease. Opium, also of great value.

Dr. Stieman, pointed out the manner in which opium gave rest in some cases of pneumonia.

Dr. Harper thought the "lost art" (Gross) was more serviceable than aconite, verat. viride etc. One reason being the ease with which venesection could be controlled as compared with those agents. Deplored the fashion in medicine by which blood-letting was almost lost sight of. Thought highly of the paper as a *resume* of the practice of the day. Opium does produce rest by driving blood to the surface and relieving congestion.

Dr. Minchin regarded the strapping of the chest as injurious from the obstruction of the circulation.

Dr. Southworth, believed the circulation was carried on by attraction, hence congestion is not the first step in inflammations, but a change in the tissues. Pressure may be useful in assisting the weakened vessels to contract and preventing the friction of the pleural surfaces. Opium he did not use in pneumonia. Narcotizing a patient and keeping him so, is not good treatment for it does not give rest to the engorged tissues.

Verat. viride gives rest by lowering the force of the heart, while digitalis is the most powerful heart stimulant. Bleeding is good, but he does not use it very often, but substitutes veratrum and aconite. The best diffusive stimulant is turpentine in 15 to 20 drop doses.

Dr. Hiner replied that he had advocated balancing remedies; bleeding he used for this purpose. It seems strange that physicians are afraid to draw ℥15 of blood from a strong patient with pneumonia, but will observe an anæmic woman loose in labor, 40 oz. without anxiety—this is not good reasoning; it requires days to accomplish with other remedies what bleeding does at once.

Dr. E. W. Jenks, of Detroit, read a paper on Ancient Gynæcology, which he was requested to publish, that all might have an opportunity to read, as it contained much that was entirely new to the majority of his hearers and was a very interesting paper as showing the state of knowledge in this branch of medicine at different times in the world's history. We are unable to give a proper abstract of the paper.

Dr. W. W. Jones remarked that the author had seemed to have left out some important truths, viz: the part taken by the Jews, Moors and Egyptians in preserving medical knowledge—after the burning of the Alexandrian library and throughout the dark ages. The priests and writers of the Jewish nation did much to preserve this knowledge.

Dr. Forbes, considered the paper a most valuable contribution to medicine, and expressed a hope that the author would publish it.

Dr. Jenks replied he had not intended to give a complete history of medicine but only a fragmentary one; had endeavored to point out the fact that many plans of treatment and instruments thought to be of recent discovery were familiar to the ancient practitioner.

The licentious character of the ancients greatly retarded the progress of medicine. They had a constant tendency to worship the genitals; as instance the worship of Priap—the unmarried female, the sterile and the widow, paying their devotions to this god; so also the Egyptians through Phallus worshipped a similar deity; and even the modern Japanese have had special worship for the sexual organs participated in by women and children. The exhumations at Pompeii indicate the licentious character of its people. Vice, however gilded, sooner or later begets ignorance, and in the practice and religious belief and habits of the ancient Greeks, Romans and Egyptians, we can easily observe why knowledge, once obtained, became to be considered of less importance, and was gradually lost.

Dr. C. Meredyth Woodward, of Tecumseh, Mich., read a paper on Typho-Malarial fever, in which the following are the salient points, viz: 1st. The duality of the poison which constitutes the fever a dual disease. A part of the time the malarial element is the prominent active poison and at another, the typhoid, and they often alternate in the course of the attack in the same person, and when the one is the most active the other (poison) is held in abeyance; 2d. The differential morbid anatomy in the two diseases, Typho-Malarial and *uncomplicated Typhoid.* Typhoid fever has the enlargement (congestion and tumefaction) of the patches of Peyer, with ulceration of the *glands* of Peyer, the ulcer being of the characteristic deep cut, or punched appearance, the surrounding surfaces of the bowel being in an (apparently) healthy condition. In Typho-Malarial fever on the other hand, you have a congested and ulcerated condition of the solitary intestinal glands, the ulcer being of a flat and *surface* ulceration, with a deposit of black pigment in them; the other portions of the mucous membranes of the bowels for some considerable extent, being in a congested and tumefied condition with the patches and glands of Peyer only *slightly* affected.

While there are these differences in the morbid anatomy and conditions, the symptoms produced by the same are so similar that it needs care to discriminate. In Typho Malarial fever you get the tenderness of the bowels upon pressure with a moderate diarrhœa of ochre colored discharges ; but the bowels are seldom *tympanitic.* The teeth are rarely covered with sordes except where the typhoid poison is predominant, and in these cases you undoubtedly have *ulceration* of the *glands of Peyer* to some considerable extent; it then partakes more of the *typhoid* nature. The tongue is usually covered with a moist buff-colored coating, nearly one-sixteenth of an inch thick, which pulls off in patches when the fever is subsiding, which it usually does at the end of 16 or 21 days, to be followed for a few days by a *red beefy* tongue, frequently *shiny* or smooth, and then becomes moist and gradually assumes a natural appearance ; 3d. The extreme high range of body temperature in the Typho-Malarial (without danger) as compared with typhoid, and less of the low muttering delirium, than in *uncomplicated* typhoid.

Two other points of no great consequence were brought out in the report of two cases. One showing that medication and nourishment could both be employed effectively perrectum by enema. Case 1st, showing that all medication and nourishment were accomplished in this manner for 14 days with recovery of the patient; during this time no sensation of hunger was experienced. Case 2d, showing simply the contrary spirit and amusing and ridiculous ignorance of patients we are frequently called upon to treat.

AFTERNOON SESSION.

A telegram was received from Dr. Grey, of Chatham, Ontario, with congratulations to the Societies.

Dr. Chapman of Hudson read a paper on Malarial fever, expressing the conviction that malarial may run into typhoid lesions, and that antiseptics such as Salicylic acid may prevent such an issue, reporting a number of cases, illustrating his method of treatment. One case of malarial fever, with a tend-

[illegible] [illegible] typhoid [illegible], be treated as follows: Salicylic acid gr. [illegible] [illegible] gr. *one-eighth*, Ipecac gr. j, given every hour. An equal mixture of tinct. aconite, tinct. gelseimium. aa. *one-fifth drop every other hour*, alternating with the following stomachic: tinct. nux vomica, tinct. chamomile aa., one-fifth drop.

Malarial fever with cerebro spinal congestion—morphia, one-third gr., hypodermically to relieve congestion and spasm, with quinine gr. xx., brandy ℥ii, water ℥i M. One teaspoonful every one-fourth hour.

Typho-Malarial fever, morph. to relieve pain, tinct. verat Mx. in water ℥ii. One teaspoonful every hour as arterial sedative and afterward, 7 doses of 15 gr. of quinine each, given by enema in four hours.

Dr. Currey thought there was a tendency to give too large doses of quinine: besides being unnecessary it was dangerous to the hearing.

Dr. Brinkerhoof agreed with Dr. Currey. Is sure that he had in infants produced temporary injury to the brain which for a time threatened life. Now gives to adults five grs. four or five times daily with as good results as formerly.

Dr. Phillips, of Kenton, Ohio, read a report on Milk Sickness. He gave the observations of fully twenty years of practice in a section of country where the disease prevails, and settled beyond question the fact of there being such a disease, and that it is separate and distinct from any other known disease. He made the following deductions:

1st. That no vegetable or mineral poison is capable of producing a disease having the peculiar characteristics of Milk Sickness.

2d. That the ascertained facts in regard to the etiology and clinical history of Milk Sickness entitle it to be classified as one of the infectious diseases.

3d. That the disease germ or agent by which this disease is propagated is a specific poison known at present only by its effects.

Dr. Williams—The paper is the most satisfactory one treating of this disease which he had ever heard; had treated this disease more or less for 20 years past. Stimulants sometimes did well but not always. Quinine not of any benefit.

Dr. Theo. A. McGraw, of Detroit, enquired if the disease in man was coincident with that in animals

Dr. Phillipps replied that ordinarily it was, and to the enquiry of Dr. Southworth, if it could be directly traced to drinking milk? Yes.

Dr. Cycuyndal had made three and Dr. Entrekin thirteen observations, and in every case found acid. Dr. Southworth had observed fevers in Monroe Co., Mich., in which similar symptoms obtained; found great benefit from phosphorus and strychnia.

Dr. Fenton's paper on "Chloroform, its dangers and its antidotes," was read by Dr. Crain. It reviewed in detail the physiological action of chloroform, and the manner in which it may cause death, coming to the conclusion that all experience pointed to anæmia of the brain, and particularly the region of the medulla as the cause of death. The anæmia being due to spasm of the capillary vessels. In the same way spasm of the coronary arteries might arrest the heart's action.

The treatment of dangerous symptoms should be by standing the patient on the head and administering a remedy to relieve the spasm of the capillaries. Nitrite of Amyl he regarded as capable of doing this, given by inhalation. Reviewing at some length the observations of different observers, he detailed some experiments made by himself on frogs; the feet being under the microscope, he observed the contraction of the capillaries under chloroform and the dilatation under amyl; the frog survived the experiment, while the frogs receiving the former without the subsequent use of the latter, all died. Similar results were observed on cats.

Dr. W. C. Chapman, of Toledo. Nitrite of Amyl acts directly on the muscular fibres of the blood vessels. The action of chloroform tends to the production of cerebral anæmia. The action of the former is well adapted to overcome the injurious effects of the latter.

Dr. Bigelow thought amyl could be of no value in such cases, seeing the respiration ceases first.

Dr. Crain. The author of this paper gave to some of the animals poisoned from chloroform amyl; those only recovered, the rest died.

Dr. Stieman thought chloroform an unsafe agent. Dr. Dawson, of Cinn., had used it for 20 years without a bad effect but recently he has lost three cases from its use; one death occurred in three seconds from paralysis of the heart. Ether was almost as useful, and never killed.

Dr. X. C. Scott, Cleveland, regarded the evil result of the use of chloroform as due to the manner of its administration, and the quantity being too large; by adopting the method of Langenbeck, the dangers were almost nil. A wire frame covered with cotton-flannel covers the nose and mouth, the chloroform being dropped upon it. So small a quantity suffices by this plan that he had recently performed two protracted capital operations, on successive days, with less than ℥j. When any evidence of danger is manifested, the patient has been quickly restored by raising the feet. While he was in the service of the hospital at Heidelberg, he approached the bed of a patient to apply chloroform for the purpose of operating; the patient died before he reached the bed. This occurring a few minutes later would have been called death from chloroform.

Dr. Forbes: deaths from ether are not so uncommon as has been stated. Agreed with the second speaker as to the im-practicability of using amyl to any purpose. Respiration having ceased, how can it be administered?

Dr. Theo. McGraw, of Detroit, remarked that Nelaton's idea of cerebral anæmia he had never accepted; in fact his experience had been directly the opposite, respiration ceasing while the heart's action was strong and regular. The primary failure of the heart rarely occurs. In one case in which he was engaged in amputation of the wrist, the black color of the blood attracted his attention. He found respiration had ceased, yet the pulse was strong and bounding. Another cause of death is the falling backwards of the epiglottis, respiration being resumed when the tongue is pulled forward.

Dr. Entrekin agreed with the last speaker as to failure of the respiration. During a recent operation he observed feeble respiration, yet on examining the pulse he was reassured, it being normal; yet soon after respiration ceased, and it required forty minutes to resuscitate the patient. Thought any anæsthetic will cause death in certain proportion of cases. Pressure on the descending aorta is beneficial in such cases.

Dr. W. C. Chapman could not understand how failure of respiration disposed of the theory of anæmia of the brain. The anæmia of the brain might be the direct cause of the stopping of respiration. Recommended the hypodermic administration of the nitrite of amyl, in certain cases.

In the evening an entertainment and banquet were given at Odeon Hall to the visiting members and their families. There was a large attendance.

THIRD DAY.

Dr. W. C. Chapman read a paper on "New Remedies."

The action of the following remedies were reviewed in a fresh and vigorous manner: Aconite in congestions; nitrite of amyl especially as antagonistic to chloroform; apiol as useful in dysmenorrhœa; bromide of potassium as especially useful when congestion depends on innervation connected with the spinal column; jaborandi; croton chloral hydrate as compared with hydrate chloral; iodoform; monobromide of camphor; salicylic acid.

Dr. Jewell had used nitrite of amyl with marked success in gastralgia, after failure of other remedies. Dose, one drop; repeated if necessary.

Dr. S. S. Thorn.—The bromide of potassium had been used too indiscriminately; he now gives it for brain depletion, headache etc. Dose—30 to 60 gr., repeated in one hour if necessary. Chloral hydrate he had used locally as a remedy for pus pockets after amputation. Best local application known, solution, 2 to 10 gr. to aqua ℥j.

Salicylic acid is particularly useful when any offensive discharge exists—surpasses all other remedies for correcting fetor. In a case of salivation, when chlorate of potassium failed to destroy the smell, the acid did it at once.

Iodoform he found most efficacious in fissures of the anus. In a case where suffering was intense cure was wrought in four weeks by suppositories. Another case, formerly pronounced cancer of rectum, also cured by this remedy.

Dr. Entrekin had for four years past used solution of chloral for healing indolent ulcers. He was much interested in the remarks of the essayist referring to the use of apiol in dysmenorrhœa. It called to mind the adage that "there is nothing new under the sun." Twenty years ago he knew an old lady near Lima, Ohio, who had become celebrated for her ability to cure this disease after the doctors failed. Her remedy was parsley tea.

Dr. Bigelow thought the older we get the fewer remedies we use.

Dr. Priest: Chloral was a remedy he used daily, yet he felt sure it was sometimes a dangerous remedy, as in cases of heart disease; related a case of this sort. He used it also as a wash for diphtheritic sore throat.

Dr. Chapman replied that the tendency with the profession was to use a new remedy for everything. Every remedy had its place in therapeutics, and if all these remedies were prescribed to meet the indications which they were capable of filling, there would be fewer failures, and much more certainty in therapeutics.

Dr. Thomas Waddel read a paper on "Involution, and its relations to diseases of the uterus," pointing out the changes taking place in the structure of the uterus, the results of arrest of involution and means for its prevention and cure.

Dr. Bigelow objected to the doctrine of change of position laid down in the paper. Thought it a dangerous and pernicious theory that woman should be allowed to sit up after labor. Many deaths from hemorrhage, he affirmed, could be traced to this cause.

Dr. Priest had no fears in allowing his patients to sit up after labor. Thought that in most cases no hemorrhage would occur even if the patient walked about the room. Related a case where a primipara, age 15 years, actually did this a few minutes after delivery; no trouble followed. Injections should be used rarely, and then only with great care, as the fluid may pass into the uterus.

Dr. Chapman commended the essay for insisting on lactation; believed that if the infant was put to the breast soon after delivery, hemorrhage would rarely or never occur.

Dr. Reid did not think it necessary to give quinia or ergot in any of his cases in order to cause tonic uterine contractions after delivery. Labor is a normal process, and rarely needed assistance. In his last 350 cases he had had no case of hemorrhage.

Dr. Nolan endorsed the paper fully, particularly its directions as to position after labor. Would not consider nursing so important for normal involution. Had one patient whom he delivered every eleven months; she never nursed, and was in good health.

Dr. Waddel replied that he admitted labor to be a physiological process, but the point he insisted on was that a large number of women who came to childbed are not in a physiological condition. Now as he had shown that this condition predisposes to tardy involution, he had recommended quinia as valuable to make up this deficiency.

He had not advocated having his patient to walk about the room, but with the remembrance that part of the useless tissue passed off as lochia, he had advocated drainage—by having the patient use the chamber vessel in the sitting posture, and if she wished it, to sit up for a short time daily. Finally he wished to call attention to the fact that a tardy convalescence often meant arrested involution, with metritis, cellulitis or lacerated cervix.

Dr. W. W. Jones, of Toledo, read an interesting paper on Septicæmia. He said that this was a modern term to represent blood-poisoning, all of the older writers, with many of the later, having used the term Pyæmia in describing similar conditions. After speaking of the importance of this condition in disease, in obstetrics, in injuries and in surgical operations, the paper gave a brief history of the practice of uniting the flaps after amputation for the purpose of obtaining immediate union, which was justly claimed as the English method, and the contrary practice of the continental surgeons, at the head of whom was Baron Larrey, whose clinical experience probably exceeded that of any other man, before or since his day, showing great and radical differences of opinion and as our methods in this country have been borrowed from the English, it becomes especially pertinent that we investigate this subject for the purpose of arriving at the truth.

The symptoms after amputations as described by Gross were then given; more particularly those attended with what is called traumatic or surgical fever, which begins within the first six or eight hours after the operation, with a duration of a few hours to a number of days, and is prone to relapse.

In speaktng of the causes, Gross says: "It is certainly not necessary to invoke the aid of blood poisoning, as is of late so frequently done, to account for the occurrence of traumatic fever." Wagner on the contrary was quoted as proving that traumatic fever was occasioned by the absorption of septic processes taking their start in the wound.

The well-known fact that the sero-sanguinolent exudation from the amputation wounds very rapidly decomposes, and in six hours has a strong, and in twenty-four has a decidedly bad odor; and also the fact now well known, that absorption from the amputated surface is active and efficient, make it no wonder that the agency of blood poisoning should be invoked to account for the occurrence of traumatic fever. The author contended that a large majority of the cases that die during the first week after amputation, may properly be attributed to septic poisoning from attempts to close the flaps so that they would unite by the first intention.

Recently, Prof. James R. Wood of Bellevue Hospital had adopted the plan of leaving the wound open, and the details of ten cases of amputation treated by Dr. Wood in the manner as published by Dr. Dennis in the *New York Medical Journal* were cited as an illustration of the air dressing. Prof. A. B. Crosby, also of Bellevue Hospital, in a paper recently read before the New Hampshire State Medical Society (1876) entitled "A Lost Art in Surgery" speaks of *cleanliness* as like unto godliness, a lost art to be restored in surgery. The paper of Dr. Crosby abounds in facts and chemical data upon the subject of septic poisoning and the means to be made use of to prevent and overcome it. Mere quotations will fail to convey their importance; the paper should be read to be properly appreciated.

One of the concluding paragraphs of the paper by Dr. Jones was as follows: The patient after amputation must not be poisoned by the absorption of his own excretions or exudations, even if it overturn the long-cherished "pride of English surgeons that they had adopted the plan of bringing the edges of the wound together after amputation so that it may unite by the first intention;" and the use of sutures and adhesive plasters must be discarded if we would prevent absorption of those elements which nature casts out of a wound made by amputation.

The objection that public opinion would not yet sustain the country surgeon in attempting to carry out the plan of the air-dressing was disposed of in the following anecdote of Martin King:

A good many years ago Martin had a compound fracture of the leg near the ankle, and I was compelled to saw off more than an inch of the end of the tibia in order to reduce it. It was hot weather—in July—and the flies were thick. One morning early a messenger routed me out of bed to go and see him, as he thought he would die. On arriving at his bedside, King gravely told me that the maggots had been going up inside of him all night, and had now got into his brain; he could feel them there, "be jabers no mistake." Martin King has since become convinced that he *was mistaken.*

Dr. Bigelow thought the paper a valuable one and the deleterious influence of absorption of putrid material well pointed out; had observed septicæmia from handling hams, loss of life and limb resulting; did not think pus could be absorbed.

Dr. D. P. Chamberlain before the war had made close apposition of his flaps after amputations, even by passing sutures close together in order to secure this object. But after the "seven days" fighting on the peninsula he was left in charge of a large number of wounded. So great a number required amputation that for three days little else was done—did not have time to close the wounds, but dressed them open wtih compresses, wet with cold water. The air was fetid and maggots bred rapidly, and they were literally without suppiies. Yet the results were most excellent.

Dr. Thorne agreed with the first speaker that pus could not be absorbed.

Dr. Jones replied that pus could not be absorbed as pus but when broken down. Septicæmia caused by decomposition of serum, blood and broken down material. This occurs at times so rapidly that the wound stinks in four hours. This causes surgical fever. A large number of those dying after amputation die from this cause. His paper was intended to call attention to this fact.

In closing, the President, (Dr. Waddick) returned to the gentlemen his warmest thanks for the assistance given him as presiding officer. The success of the meeting, now coming to a close, was largely due to the promptness and the courteous manner which had characterized the discussions. The representative men of the profession of north-eastern Indiana, southern Michigan and north-western Ohio were convened in the assembly, and the papers which they had presented were indeed valuable contributions to the literature of medicine. So valuable had been this meeting that he trusted it would be renewed yearly or at least bi-yearly in the future. This assembly which was now to be dissolved would soon again be renewed, and his earnest prayer would be that they would all be spared for such a reunion.

Adjourned *sine die.*

Detroit Academy of Medicine.

DETROIT, October 10, 1876.

The Academy met as usual, at the office of Dr. Inglis.

In the absence of both the president and vice-president, Dr. John Flintermann was elected president *pro tem.*

The minutes of the last meeting were read and approved.

Dr. E. Chapaton was introduced to the society.

Dr. Yemans read a detailed mortality report of this city for the month of August; also giving the temperature and humidity of atmosphere. The Dr. said if it were agreeable to the society, he would be glad to furnish it with a mortality report of each month.

Dr. Carstens remarked that our mortality reports have been very unreliable, as they include a great many deaths which occur outside of the city, but are brought here for interment. The Dr. spoke of the slip-shod way in which the cause of death was reported in many instances, and thought physicians should use care in this particular so as to make the reports as correct as possible.

Dr. Flintermann read the history of a case of abdominal aortic aneurism complicated with acute rheumatism of the joints. (Printed in *Review of Medicine.*)

Dr. Carstens did not think that emboli in the small veins could have been the cause of the rheumatism, as this would not account for the fever. The Dr. asked why not try in such hopeless cases of aneurism electrolysis as a means of cure.

Dr. N. F. Brown said that he had had a similar case in a lady seven months advanced in pregnancy. When he was first called to see her, she complained of pain in the abdomen, and of a partial paralysis of the lower extremities. On examination he found pulsation of the abdomen, and auscultation revealed bruit and thrill. The late Dr. Inglis was called in consultation, and after a careful examination he pronounced it a case of abdominal aortic aneurism.

A short time after this—in a second consultation with Dr. Inglis, and while examining the patient, they found that the uterus contracted. Dr. Brown examined the patient and found the os dilated, and thought that the woman would be delivered that night. Dr. Inglis did not remain, but came back again about half an hour before the child was born. During uterine contractions the bruit did not disappear. The lady got through her labor safely, and recovered perfectly, the aneurism gradually disappearing. Dr. Brown asked if there was ever a spontaneous recovery from abdominal aneurism known?

Dr. Carstens thought we might have spontaneous cure of abdominal aneurism, especially in pregnant women, as during this period the blood is richer in fibrin, and continues through the puerperal state—gradually returning to the normal condition. Such a state of the blood he thought would be the most favorable for a cure.

Dr. Flintermann said that in many cases pulsation of the abdominal aorta might be mistaken for aneurism. During pregnancy the abdominal walls often become very much attenuated and it might be very hard to make a differential diagnosis.

Dr. N. F. Brown said that a similar case occurred in his practice, to which he called the late Dr. Inglis in consultation. Dr. Inglis quieted the patient's fears, told her it was only pulsation of the main artery, and that it would soon disappear. Both the diagnosis and prognosis were entirely verified.

PATHOLOGICAL SPECIMENS.

Dr. Munson presented to the secretary a testicle that he had removed for sarcoma. The disease was probably caused by injury and was of about six months standing.

PREVAILING DISEASES.

Dr. Inglis had seen a good many cases of a low form of fever, probable typho-malarial, also quite a number of cases of scarlet fever.

Dr. Spalding spoke of a case of diphtheria which he reported as well at the last meeting. Three weeks after the throat symptoms disappeared, he was called to see the patient again. During this interval, however, the patient had regained appetite, strength, etc., but at this time was showing all the symptoms of diphtheritic poisoning—vomiting, bloating, albuminous urine, etc., and for two or three days preceding death paralysis of the pharyngeal muscles. The Dr. had used during the continuance of the throat trouble mur. tincture of iron, chlorate of potassa, and salicylic acid ; after treatment, quinine and wine.

Dr. Flintermann had seen a similar case. The patient, a child, seemed perfectly well for four weeks, when it suddenly died. The Dr. thought that paralysis of the heart was probably the cause of death.

Dr. N. F. Brown had seen several cases of a low form of fever. He could not call it typhoid. In three cases he had been puzzled to make out the diagnosis, all the symptoms indicated typhoid fever unmistakeably, but to the Dr.'s surprise they were convalescent in three days. He treated them the same as he would typhoid fever patients. In one case pulmonic symptons were well marked. Temperature in second week averaged 103°F.

Dr. B. also reported a case of meningitis following a malarial fever, first of a remittent, afterward of an intermittent character. The child did not recover satisfactorily, was irritable and listless. The day before the meningitis set in it seemed sore, and did not like to be moved. On the following day it began to scream and tear at its face and hair; pupils contracted; high fever, etc.; and soon passed into a semi-unconscious state. The patient is now convalesced. Dr. B. also reported a case of tetanus resulting from a slight injury to the foot with a rusty nail. The patient died in five days.

Dr. Spalding asked if there was any peculiar connection between injury from rusty nails and tetanus? He said: "Injuries ten times more extensive from other causes are rarely followed by lock-jaw, while slight injuries from this cause are quite apt to be followed by it. Nine tenths of the cases I have seen were from this cause."

Dr. Flintermann reported diphtheria as prevailing in his practice. He used for a local application ʒ ss. of salicylic acid in ℥ ss. of alcohol, brushed over the throat once in three hours.

On motion, Dr. Spalding was requested to prepare a paper on tetanus.

The name of Dr. Chapaton was proposed for membership.

On motion the society adjourned.

JAMES MUNSON, M. D.,
Secretary.

DETROIT, October 24, 1876.

The Society met at the usual place, the president, Dr. Andrews, in the chair.

The minutes of the last meeting were read and approved.

PREVAILING DISEASES.

Dr. N. F. Brown had seen a good many cases of sore throat. He had noticed through the secular press that diphtheria was prevailing. He did not regard the most of cases as any thing more than pharyngitis with slight exudate. He had seen two cases of diphtheria. In one case the false membrane completely covered the fauces and invaded the nares. In the other the membrane was not so extensive.

Dr. Carstens had seen a good many cases of colds or influenza. He had heard of several cases of diphtheria in the sixth ward.

Dr. Andrews had met with several cases of diphtheritic sore throat without the true poisoning. The fauces were covered with exudate but there was no constitutional disturbance. The

Dr. mentioned a patient that came to his office with a small ulcer on left tonsil, which had been there for several days. The next time he saw the patient the ulcer was very much larger and covered with false membrane.

Dr. Brown asked Dr. Andrews if in simple sore throat with exudate he had noticed any fetor of the breath.

Dr. Andrews said he had not.

Dr. Connor asked Dr. Andrews "if in his study and observation of croup and diphtheria he considered them identical.

Dr. Andrews said he believed it was a mooted point, and was not prepared to say; he had seen two cases in which he hardly knew what to call it.

Dr. Brown, in answer to the same inquiry, said he regarded them as identical.

Dr. Stewart from his experience considered them distinct diseases.

Dr. Jenks said that some twelve or fourteen years ago he had had quite a number of cases of diphtheria. A few of the cases, after they were convalescent ten days or more, were taken with all the symptoms of croup.

Dr. Andrews thought there were two classes of cases: 1st. Those with slight exudate and without constitutional disturbance. 2d. Those with some local trouble and great constitutional disturbance or blood poisoning.

Dr. Connor thought the general tone of medical writers was that croup and diphtheria were identical diseases, and made the following motion: that Dr. P. Stewart prepare a paper in support of the theory that croup and diphtheria were distinct diseases, and Dr. Carstens prepare a paper advocating the theory of their identity, to be read at the next meeting of the society but one. Carried.

Dr. Jenks thought it would be interesting to discuss the prophylaxis of diphtheria.

Dr. Carstens said it was necessary to isolate the patients.

Dr. Jenks said this was often impossible, especially in nursing children. In an epidemic of diphtheria which occurred fourteen or fifteen years ago, the Dr. said he had used quinine and whisky as a prophylactic measure with very beneficial result.

Dr. Connor asked Dr. Jenks if he did not think the quinine would have done just as much good without the whisky.

Dr. Jenks thought they both did good.

Dr. Andrews said he had been using salicylic acid and thought it would prove a valuable prophylactic agent.

Dr. Connor, in speaking of the pathology of diphtheria thought the disease was due to one or the other of two causes, *i. e.* causes that produced either fermentation or putrefactive changes in the system, and as salicylic acid interferes with both these processes, he thought it might prove of great value as a prophylactic measure.

The following named doctors were elected members of the Committee on Membership; H. A. Cleland, J. S. Johnson and E. S. Shurly.

Drs. C. C. Yemans, N. F. Brown and F. A. Spaulding were elected a Committee on Papers.

Dr. Jenks moved that the secretary notify the members of committees of their election. Carried.

No further business the society adjourned.

JAMES MUNSON, M. D.
Secretary.

Detroit Medical and Library Association.

Without any reference to the past history of the mutual relations of the medical profession in the city of Detroit, it will be sufficient for our purpose to state that for several months there had been a strong desire in the minds of a large majority of the medical men in the city, that those relations should become more cordial and *very much less* tinged with asperity. After a long period of incubation, the determination was reached to form a new medical society which should harmonize all conflicting interests, and with this object in view a very largely attended meeting of the profession convened in the Mayor's office on the evening of September 6, 1876. Dr. A. S. Heaton was called to the chair and Dr. Jas. D. Munson was made secretary. The chairman briefly stated the object of the meeting and then followed a pretty general expression of opinion favorable to the proposed formation of the new society. The chairman was finally empowered to appoint a committee to draft a constitution and by-laws for the government of the new society, which duty he performed by naming Drs. Shurly, H. E. Smith, Stewart, Brumme, Inglis, Jamieson and Kerr, and the meeting then adjourned for two weeks.

On the evening of the 20th of September, pursuant to adjournment, a second meeting of the profession convened in the Mayor's office to hear the report of the Committee on Constitution and By-Laws. The committee had deemed it the best plan to follow as closely as possible the organization of the American Medical Association and with this end in view presented the following preamble:

Whereas, At a meeting of the members of the regular medical profession of the city of Detroit, held at the Mayor's office on Wednesday evening, September 6, 1876, it was deemed expedient to organize a general medical society, auxiliary to the American Medical Association, to supply more efficient means than have hitherto been available here for cultivating and advancing medical knowledge; for elevating the standard of medical education; for promoting the usefulness, honor and interests of the medical profession; for enlightening and directing public opinion in regard to the duties, responsibilities and requirements of medical men; for exciting and encouraging emulation and concert of action in the profession; and for facilitating and fostering friendly intercourse between those who are engaged in it, therefore

Resolved, That we adopt the following Constitution and By-Laws.

The general features of the Constitution and By-Laws were such as are usually found in those instruments. Among its special features it was provided that there should be a permanent secretary who should receive a salary to be fixed by vote of the society; that all candidates for membership and all ethical and legislative questions should be referred, without debate, to an advisory council, composed of seven of the oldest members of the society; that there should be appointed each year four chairmen of sections, embracing the whole field of medicine, and that each chairman should at a specified time, report in a brief resume, the advance made during the previous year in the studies embraced in his section. After some discussion, and a few minor changes the report of the committee was adopted.

A provisional advisory council was then appointed, consisting of Drs. Jas. A. Brown, A. S. Heaton, E. W. Jenks, H. E. Smith, H. A. Cleland, D. O. Farrand and J. J. Mulheron, and these gentlemen were empowered to pass on the credentials of all applicants for membership. After the transaction of some further unimportant business the meeting adjourned, subject to the call of the provisional council.

On the evening of October 4, thirt-two physicians met in the gentlemen's parlor of the Russell House, in answer to the call of the provisional council. Dr. Jas. A. Brown was chosen temporary president and Dr. J. J. Mulheron temporary secretary. The report of the council was then read, from which it appeared that those present had presented satisfactory credentials and been accepted by the council and actually constituted "The Detroit Medical and Library Association.

On motion of Dr. Heaton the President selected a nomina-committee to report officers for the permanent organization of the Association, and their report, which was as follows, was adopted.

President, Jas. A. Brown; Vice President, C. B. Gilbert; Secretary, Theo. F. Kerr; Treasurer, David Inglis.

Advisory Council—Jas. A. Brown, A. S. Heaton, E. W. Jenks, H. E. Smith, H. A. Cleland, D. O. Farrand, J. J. Mulheron.

Committee on Publication—E. L. Shurly, J. D. Munson, R. A. Jamieson.

Ex-Officio—David Inglis, Theo. F. Kerr.

Committee on Library—Peter Stewart, Leartus Connor, C. J. Lundy, F. A Spaulding, J. H. Carstens.

Section of Practical Medicine, Materia Medica and Therapeutics—Chairman: A. S. Heaton.

Section of Physiology, Pathology, etc.—Chairman: J. G. Johnson.

Section of Surgery and Anatomy—Chairman: T. A. McGraw.

Section of Obstetrics, etc.—Chairman; E. W. Jenks.

Thus the organization of the society was complete and it only remained to set its machinery in motion. To facilitate this action, Prof. Armor was requested, by unanimous vote of the society, to deliver an address before them at the next regular meeting. Adjournment followed the transaction of some routine business.

October 18, the Association met to hear Prof. Armor's address on "Mental Epidemics" which he had kindly consented to deliver in response to the invitation tendered two weeks previously. It is needless to say that the address was an able and interesting one and was heartily received by the Association. Unfortunately, the author could not comply with the request for publication, but there was a preliminary address which was so pertinent to the occasion and withal was so replete with good advice and timely suggestions that by consent we transcribe it entire.

PROF. ARMOR'S PRELIMINARY ADDRESS.

Before taking up the special topic I have selected for the evening, you will allow me to express my hearty thanks for the distinguished honor of being so cordially invited to say a word to you at the *first regular meeting of your society.* The honor is one I shall not soon forget.

With the profession of the west, and especially of *Detroit,* I have been long and intimately associated. Detroit is my old and much loved home, and I can not but feel a lively interest in every thing pertaining to her professional prosperity.

I have been specially interested in watching the preliminary steps of this organization. You have organized on the true basis—that of generous compromise and *scientific work.* If old traditional prejudices have been handed down, you have manfully determined that you will not accept them, and in doing so, gentlemen, you have honored yourselves and honor the profession. Hereafter I trust we may have less of "Doctor's *quarrels*" in Detroit, and more of "Doctors *in council.*" Science ought to have no quarrels—no partisans—no cliques—no factions. Such things degrade science and turn the profession into public ridicule.

In a beautiful ancient allegory, justice is represented as *blind,* groping her way in the dark with the lantern of *testimony,* through which alone she can discover *truth.*

Let us, gentlemen, in imitation, know nothing in these meetings but science. We can meet here on *common ground.* Science has no aristocracy—no privileged orders. She has but

one standard of excellence. The man who is pre-eminent is the *working* man—the man who reads, and thinks, and observes, and experiments, and who extorts from nature her secrets for the benefit of his fellow men. Her standard is the standard of *true manhood.* If any would be *great* among you, let him show his greatness by his *works.*

Let this be your standard, gentlemen, and your organization can not fail. Men, happily, get tired of quarrelling by and by—but they never get tired of *true science* and *learning.*

If you have good papers, good practical reports, and good profitable discussions, you will never have thin and barren meetings; your society will grow in interest and usefulness; the public will more and more appreciate the dignity and worth of our profession; and, what is better than all, you will find yourselves more and more knit together in the bonds of professional unity and harmony.

I hope great things from this organization in Detroit. You have started right and I have great faith that you will keep on right.

Your general plan of organization is, I think, most admirable. If it fails to bring out the best talent of the city, it will be your own fault—not the fault of the organization.

What you now need is *faithful workers.* Never let the society be disappointed in a promised paper, or a promised report. Let each one be as punctual in such matters as he would be in a consultation visit, Yes, even more so—for in the one case it is largely a *money* consideration, in the other it is a matter of science; in one case you may disappoint but *one* member of the profession, in the other many. Moreover, you have no moral right to the *time* of men whom you disappoint.

And let your discussions, gentlemen, always be in a kind and fraternal spirit. I do not mean by this that we should yield. assent to every thing that is said or written. On the contr

I hope that your society will be noted for being sharply critical. The ablest and most learned organizations of the country—in both Europe and America—are, as a rule, the severest in their criticisms of apparent fact, and in their logical analysis of new and specious theories. Men who are the most earnest searchers after truth and who are the most profound workers are often those who are found most frequently challenging the *witnesses* and doubting the *facts*. But they do so for the reason that they are earnestly seeking to eliminate the true from the false. They do not want to rest in *active doubt*. Do not, therefore, I beg you gentlemen, be impatient of criticism, if it is tendered in the *right* spirit, and it is this *right spirit* that I am urging upon you. In no sphere of life is outspoken *frankness* so commendable as in associations of this kind. When we meet in professional council we should have no professional secrets, no mental reservations. Every member of the association should seek to give to his fellows, as opportunity offers, the very best workings of his brain, and he should expect from others, in return, the same generous contribution. This will make a live, working, harmonious and useful society—one alike honorable to the profession of Detroit, and to the idividual members who constitute the Association.

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Two meetings in November were taken up in making some changes in the Constitution and By-Laws prior to having them printed. The first meeting in December was, for the most part, consumed in making the arrangements by which the Association assumed the publication of the DETROIT MEDICAL JOURNAL so that it was not until December 20th that a meeting was held, devoted purely to medical science. Of this and subsequent meetings we hope to give reports in the JOURNAL as may seem desirable or expedient. We have thus briefly sketched the history of the organization and preliminary work of "The Detroit Medical and Library Association." It is the earnest wish of its members that it should become in reality a general medical society embracing in its membership every practitioner in good standing in the city of Detroit.

THEO. F. KERR, M. D.,
Secretary.

Calhoun County Medical Society—Its Re-organization

Monday, Dec. 4th, at 2 P. M., a large number of Medical gentlemen of the county of Calhoun, met at the office of Dr. John P. Stoddard, in the village of Albion, in response to a call issued informally sometime since, for the purpose of re-organizing the old Calhoun County Medical Society. A much larger number were in attendance from every point in the county, except Albion, than had been anticipated. Battle Creek was represented by Drs. Edward Cox, S. S. French, Mrs. M. A. Garcia and L. A. Foote; Marshall was represented by Drs. J. H. Montgomery and H. L. Joy; Homer by Drs. E. A. Collins and O. S. Phelps; Tekonsha, by Dr. O. C. Lyon; and Albion by Dr. John P. Stoddard.

The meeting was called to order by Dr. John P. Stoddard, who moved that Dr. J. H. Montgomery be the temporary chairman, which motion unanimously prevailed.

On taking the chair, Dr. Montgomery made a few very appropriate remarks, when, on motion, Dr. L. A. Foote was made temporary Secretary. Dr. S. S. French, of Battle Creek then moved that the chairman appoint a committee of three on permanent organization, who should report a Constitution and By-Laws, and also recommend a place for the next meeting. This motion prevailed.

The chairman appointed as such committee Drs. S. S. French, John P. Stoddard, and O. S. Phelps.

In order to give this committee time to make its report, the meeting then adjourned till 4 P. M.

On re-assembling at the time named the committee on organization reported a Constitution and By-Laws, which, after some minor amendments, were adopted. According to the new Constitution the Society will hereafter be known as the Calhoun County Medical Association, and its object "shall be mutual control, protection and improvement of its members, in medicine and collateral sciences," and its meetings are to be held quarterly.

In accordance with the recommendation of this committee, Marshall was selected as the next place of meeting.

The following named gentlemen were then elected by ballot as the permanent officers for the ensuing year:

President—Dr. J. H. Montgomery, of Marshall.

First Vice-President—Dr. Edward Cox, Battle Creek.

Second Vice-President—Dr. O. S. Phelps, Homer.

Secretary—Dr. John P. Stoddard, Albion.

Treasurer—Mrs. Dr. Garcia, Battle Creek.

The President then appointed the following committees:

On Ethics and Grievances—Drs. Edward Cox and O. S. Phelps.

On Public Health and Hygiene—Drs. H. L. Joy and O. C. Lyon.

On Epidemics and Endemics—Drs. John P. Stoddard and E. A. Collins.

On our Relations to Jurisprudence—Drs. S. S. French and L. A. Foote.

As Essayist for the next meeting the chairman appointed Mrs. Dr. M. A. Garcia. As a subject for discussion at the next meeting, the President selected Diphtheria, and appointed Drs. O. S. Phelps and O. C. Lyon to open and conduct the same.

After some further remarks from the chairman, the Association adjourned to meet at Marshall on the first Tuesday in March next, at 1 P. M.

J. H. MONTGOMERY, M. D., *President.*
JOHN P. STODDARD, M. D., *Secretary.*

Abstracts From Exchanges.

Practice of Medicine and Therapeutics.

EAR COUGH.—Dr. Dobell (Winter Coughs, page 111) after collecting a considerable number of observations, sums up our knowledge of ear cough as follows:

1. Ear cough is excited by an irritation of the meatus auditorius externus in certain persons.

2. These persons possess a hyperæsthetic condition of the nerve supplying that canal and in whom any slight titillation of this nerve induces a feeling of tickling in the throat.

3. This hyperæsthetic state generally exists in both ears. sometimes, however, only in one and occurs in about twenty per cent. of those examined.

4. Its existence can usually be traced back to childhood and is probably a congenital peculiarity.

5. The nerve of the ear concerned in the production of ear cough is not a branch of the vagus as Romberg and Toynbee have affirmed, but is a branch of the auriculo-temporal branch of the fifth cranial nerve.

6. This sympathy between the ear and the larynx is an example of a reflected sensation in which the connection between the nerves involved takes place in the floor of the fourth ventricle.

7. Vomiting is occasionally but rarely the result of the application of an irritant to the nerve distributed to the auditory canal.

HOW SHALL WE CURE A COLD IN THE HEAD?—Dr. D. Ferrier (London *Lancet*) has made an extensive trial of various substances to be used as snuffs, for curing a cold in the head. The following combination, if used at the beginning of an attack, he regards as nearly a specific. ℞ Muriate of morphia grs. ij, Acacia powder ʒ ij, Subnitrate of bismuth ʒij, One-quarter to one-half of this powder may be taken as a snuff in the twenty-four hours.

ASTRINGENTS—THEIR LOCAL ACTION ON THE BLOOD VESSELS.—H. Rosenstirn (Centralblatt fur die Med. *London Medical Record*, Oct. 16, 1876) tested the local action of many astringents by placing them upon the mesentery of a curarized frog and estimating the lumen of the affected vessel by means of a microscope. To exclude reflex action the spinal cord was destroyed and the heart ligatured. Nitrate of silver in solutions of from one to ten per cent. acted most powerfully on the vessels. The contraction extended to about half the lumen of both arteries and veins and in a much less degree in the capillaries. The reaction occurred within a few seconds.

Stagnation generally took place in the vessels; permanent in the capillaries and temporary in the veins and arteries. Tannic acid had exactly the opposite effect. Under its influence the arteries dilate, even the veins and capillaries to the extent of one-half of their lumen and appear to be over filled with blood corpuscles. The dilated vessels become narrowed at once by the action of nitrate of silver. Gallic and pyrogallic acid have an action similar to tannic acid. Acetate of lead acts more feebly than nitrate of silver. It narrows most veins but no effect was observed on the capillaries. Sometimes also stand-still of the circulation occurs. A ten per cent. solution of sesqui-chloride of iron had no effect.

In a fifty per cent. solution it narrowed the vessels less than acetate of lead. This narrowing is limited to the arteries and veins while the capillaries dilate. The results of the alum solution were variable. Of their substances·only nitrate of silver and acetate of lead contract the vessels.

VARIATIONS IN THE TYPE AND PREVALENCE OF SKIN DISEASES IN DIFFERENT COUNTRIES OF EQUAL CIVILIZATION.—After hearing and discussing a paper on this subject by Dr. James C. White, the Dermatological Section of the International Medical Congress, adopted the following conclusions: (Med. News Library, Oct. 16th.)

1. Certain obscure affections the etiology of which is little if at all understood even in those parts of Europe to which they are mostly confined, may be regarded as practically non-existent among us—of such are *prurigo*, *pellagra* and *lichen exudations rubra.*

2. Certain diseases directly connected with and dependent upon poverty and habits of personal uncleanliness are less prevalent in the United States than in those parts of Europe of which we have sufficient statistical information for comparison. Examples of this class are are *animal parasitic affections* especially.

3. Some cutaneous affections of grave character which are dependent upon or a part of serious constitutional disorders are of less frequent occurrence and of milder type amongst us than in Europe in general or those parts of it where they are endemic. *Lupus*, the *syphilodermata* and *leprosy* are the most marked instances of this class.

4. Certain disorders of the skin, especially those of its glandular system and those connected more immediately with its nervous system are apparently more prevalent with us than in Europe. The most notable examples of the former are *seborrhœa acne*, and possibly the heat rashes of the latter, *herpes urticaria* and *pruritus.*

5. The type of certain acute congestive and nervous diseases of the skin is more severe in this country than abroad.

ECZEMA AND PSORIASIS—ARE THEY LOCAL DISEASES?—The Dermatological Section of the International Medical Congress, after hearing and discussing a paper on this subject, read by

Dr. L. D. Bulkley, adopted the following conclusions, (Med. News. Library, Oct. 25.)

1. Eczema and psoriasis are distinct diseases. The former is to be clearly distinguished from artificial dermatitis, and the latter from the eruptions of syphilis, scaly eczema and psoriasis.

2. Eczema and psoriasis cannot own a double causation or nature, at one time local and at another constitutional, but with other diseases may have a two-fold cause, a predisposing and an exciting.

3. Eczema and psoriasis in many of their features resemble the accepted constitutional diseases more than they do those recognized as local.

4. Eczema is most properly likened to catarrh of the mucous membranes—it is very probable that some attacks called catarrh are eczema and psoriasis of the mucous tissue.

5. Both eczema and psoriasis resemble gout and rheumatism in certain respects and are dependent upon a somewhat similar, although as yet unknown constitutional cause; much of the skin lesion must be looked upon as the local result or remains of the diseases.

6. There as yet exists no microscopical or physiological proof that eczema and psoriasis are the sole result of local cell disorders, either congenital or acquired or due alone to perverted nerve action.

7. Local causes play a very important part in this etiology of eczema. They are probably inoperative in psoriasis.

8. Local treatment is often insufficient alone to remove the lesions of eczema and psoriasis, and cannot prevent or delay relapses; its success does not necessarily demonstrate the local nature of these affections.

9. Constitutional treatment alone and singly, can cure many cases of eczema and psoriasis and prevent or delay re-

lapses in a certain proportion of cases. Under constitutional treatment is included every agency not properly classed among local measures.

10. The total weight of evidence and argument is that eczema and psoriasis are both manifestations of constitutional disorders and not local diseases of the skin.

Physiology.

ALCOHOL AS FOOD.—Dr. R. T. Edes (*Boston Med. Journal*, Oct. 5th, '76), in a study of this subject, draws the following conclusions:

1. Under some circumstances alcohol may be a food. Thus *(a)*. Deprivation of nourishing and sufficiently varied and abundant rations, as in the case of soldiers, sailors, laborers, etc. *(b)*. When for any reason ordinary food is not well assimilated, or the system has become habituated to alcohol as in some rare instances of habitual topers, and in some wasting diseases. This substitution should be a matter of necessity, and not of choice.

(2). The healthy man with a full and varied supply of food needs absolutely no alcohol. Wine with food sometimes assists digestion, but the digestion which needs the aid is either enfeebled or overburdened. The most severe and long continued labor can be carried on better without alcohol than with it.

3. In the few cases in which this is not true, and where a small quantity of alcohol suffices merely to restore the normal vigor without excitement the previous condition is probably one of somewhat impaired vitality, perhaps more especially affecting the heart. As an addition to a diet already sufficient alcohol is, to say the least, useless in perfect health.

4. An occasional use of light wine or beer is a luxury and not a necessity. Experience shows that such a use cannot be regarded as seriously detrimental either to bodily or to mental vigor.

5. After a fatiguing day's work as a relaxation and agree-

able change, or as a prelude and assistance to the digestion of more appropriate food, alcohol may be looked upon as approaching more nearly to a true stimulant or restorative than under any other circumstance in health. We then expect from it neither intoxication or reaction.

6. An habitual overdose of alcohol leads to degeneration of important organs and undermines the vital powers.

7. There may be moral reasons for total abstinence, entirely distinct from the physiology.

8. The introduction of the use of light wine and beer, though not desirable in a community already in a state of ideal physical and moral perfection, is highly desirable as a substitute for the use of stronger liquors.

BILIARY SALTS. THEIR ACTION.—Drs. Feltz and Ritter (*London Lancet*, Sept. '76) have made some very careful experiments, bearing on the action or the biliary salts. They found that by injecting into animals small doses of a mixed solution of glycocholate and taurocholate of soda in the same proportions as in normal bile, a pathological state could be induced which lasted for five or six hours only, and was marked by bilious vomiting, diarrhœa, a slow pulse, and a slight reduction of temperature, and the frequency of the respirations.

The slowness of the pulse, and the diminished arterial tension were most marked soon after the injection of the bile acid, but persisted for some time after their elimination. The phenomena were next shown to occur after both the vagi and sympathetics were divided. Hence they are independent of any special action on the nervous system, unless on the cardiac centres themselves. When the heart was removed from the body, and allowed to imbibe the solution of the bile salts, its movements became irregular and then ceased altogether. Ordinary muscular fibre also refused to contract in a quarter of an hour after the same solution was dropped on it, while if a solution of chloride of sodium of the same strength was substituted, its contraction was quite vigorous and energetic after a longer interval. Thus the independence of any nervous influence was decisively shown. This special paralysing effect on a muscle at once explains the slow pulse, the weak cardiac contraction, the dimunition of the arterial tension, the lowering of the temperature, and the lessened nnmber of respirations. Further it was shown that the bile solution retarded the movements of the blood corpuscles. In this way we have the data for more precise explanation of the effects of jaundice.

Surgery.

SUCCESSFUL REMOVAL OF THE SPLEEN.—M. J. Pean (*London Lancet*) reports a second successful case of splenotomy. Patient was a young married woman, aet. twenty-four, well developed; had been confined four times. Tumor was first noticed eighteen months before the operation. Grew very rapidly; interfered with digestion and respiration. The tumor was removed in much the same way as an ovarian tumor and the pedicle secured the upper part of the abdominal wound. No complication retarded the recovery, so that in a month she was allowed to go home. Five months after operation she was reported as doing well. This is the sixth recorded case of splenotomy, the two successful ones by Mr. J. Pean, the others by Kiichler, Spencer Wells and Kœberle.

GASTROTOMY—A SUCCESSFUL CASE.—Prof. Verneuil, of Paris, (*Medical Examiner*) reports the following unique case.

A boy, aet. seventeen, accidentally swallowed, February 1876, a solution of caustic potash. The symptoms of inflammation of the œsophagus were much relieved in fifteen days. Difficult deglutition continued and increased so that the last of March he was taken to hospital. For a time relief was afforded by bougies; but all efforts finally failed and extreme debility ensued. On July 26th gastrotomy was performed, the patient being under the influence of chloroform. Careful antiseptic precautions were employed. An incision inclining obliquely downward and outward was made between the cartilages of the ribs on the left side, at an elevation corresponding to the assumed seat of the constriction. One small artery required ligature. The peritoneum was then carefully raised and divided with scissors. The stomach was now easily distinguished by its white color. It was then drawn forward between the lips of the external wound and there temporarily fixed by two long acupuncture needles. This done the portion of stomach so drawn forward was united to the edges of the wound at fourteen points by metallic sutures; the long needles were withdrawn and the wall of the stomach was divided to a limited extent, sufficient however, for the introduction of a large India-rubber bougie, which was kept fixed by a silver wire to the wall of the stomach. The length of the bougie placed in the stomach was 2.7 inches. The hemorrhage which ensued on division of the highly congested stomach was considerable, but was arrested by the usual means. The operation was not followed by any accident whatever, and as soon as the sutures came away the patient was able to swallow, as it were, some fluid nourishment. On August 20th he was able to get up and on September 10th could remain up the entire day.

The fistula looked healthy, its edges bordered by a fringe of smooth and red gastric mucous membrane. The appetite was good and nutrition evidently re-established, for by October 20th he had gained nearly 20 lbs. Movements of mastication are excited whenever nourishment is injected into the stomach.

This operation originated with M. Sedillot, of Strasburgh, in 1811, and since then has been repeated fifteen times, always with fatal result. These cases were operated upon under very unfavorable circumstances, as the cases were worn out by incurable diseases, as cancer, etc.

Obstetrics.

Extra Uterine Gestation—Removal of Living Child by Abdominal Section—Recovery of Both Mother and Child.—Dr. Jessop (*British Medical Journal,* Nov. 15, '76) reports the details of a case as above. The placenta was left untouched, the lower angle of the wound being left patulous to allow of the *debris* being discharged. The child was as healthy, vigorous and large as an average child born in the natural way. It survived 11 months, dying of croup and inflammation of the lungs. So far as we are aware this is the first case of extra uterine pregnancy in which both mother and child have been saved by abdominal section.

Placenta Previa— Treatment.—Dr. Davis, (Trans. Penn. State Med. Society, 1875), concluded a paper on this subject by giving his opinion as to the best method of treating placenta previa as follows:

If flooding calls for active interference before dilatation has begun, the bleeding should be controlled and the dilatation hastened. Preferable for this purpose he uses:

1. Molesworth's dilators, preceded if necessary by a sponge tent. 2. Barnes' dilators. 3. Tampon. 4. Ergot, if presentation be not transverse. 5. Evacuation of liquor amnii.

After the os is dilated, an inch and a half or two inches, if not covered by the placenta, rupture the membranes, and if hæmorrhage still continues apply the forceps. But if the os be covered by placenta, the application of the forceps must be preceded by the detachment of the placenta on one side.

In a large proportion of cases after the execution of this procedure, giving of ergot, kneading the abdomen, and applying the binder, bleeding will cease, and the case may be left to nature. If, however, the womb refuses to contract sufficiently to cause the head to tampon the os, and stop the bleeding, an attempt should be at once made to apply the forceps, and once the blades of the instrument have been properly adjusted to the child's head, the accoucheur becomes master of the situation.

Version he would reserve for

1. Cases of transverse presentation, in which cephalic version cannot be performed.

2. Cases in which the blades of the forceps cannot be made to grasp the head within the cavity of the uterus.

Editorial.

NOTICE TO CORRESPONDENTS, ETC.—Communications intended for publication, and books for review, should be addressed to "Editors of Detroit Medical Journal, care of E. B. Smith & Co., Detroit."

All remittances of money, all letters on the business of the JOURNAL, pertaining to subscriptions or advertisements, should be addressed exclusively to the publishers, E. B. Smith & Co., corner Fort and Griswold Streets, Detroit, Mich.

Original Articles, Reports of Medical Societies, Observations, Correspondence. News, etc., of general interest, are respectfully solicited from every source. Articles should be practical and carefully prepared.

The Editors will not be responsible for statements made over the names of contributors.

Salutatory.

In making our obeisance to the professional public we are spared much of the embarrassment and diffidence which naturally attend a stranger's introduction. The journals to whose consolidation the DETROIT MEDICAL JOURNAL owes its origin, have for a number of years been more or less familiar to the reading portion of the profession and have enjoyed a certain degree of confidence and esteem. In our present capacity therefore we do not think we are at all presuming in addressing the patrons of the journals referred to, with some of that familiarity which is begotten of a prolonged acquaintance; and on the strength of that acquaintance we would ask for a continuance of the support and favor which were respectively accorded our predecessors.

It would seem fitting in this initial number of what is to a certain extent a new enterprise, to explain somewhat briefly its origin and aims. The journals whom we succeed had latterly been regarded as the representatives of different phases of opinion on local medical politics and on questions in which it was thought the profession took a certain degree of interest. The field however from which they derived their support, although contributing as largely to the sustenance of each as from the nature of things could reasonably have been expected, was not large enough to keep in vigorous health such a publication as it was the ambition of their respective editors to be able to give to their readers. This fact taken in connection with the additional and more weighty fact that the existence of the two journals under circumstances which alone could justify the keeping alive of both was necessarily productive of an antagonism between their respective supporters which was incompatible with the best interests of the profession, rendered it very desirable that a compromise should be effected. This compromise was proposed by the Detroit Medical and Library Association and provided for the consolidation of the journals under the name we now hear and on a platform broad enough to receive all members of the regular profession and on which no question not affecting the higher and true interests of the profession shall have a place.

The DETROIT MEDICAL JOURNAL, therefore, will be found under its present management to be the organ of no party or interest, to advocate in a partisan spirit, no specific measure or feature of medical politics on which there is room for an honest difference of opinion among reputable medical men. In justice to themselves and in vindication of their record (should such vindication seem called for) the editors do not deny the right of any journal to advocate the interests of any school party or section, neither do they deny the possibility of circumstances under which such an advocacy is highly proper; they merely say that the terms on which their respective journals were consolidated forbid any such course in the conduct of the present journal; those terms provide for the cultivation of interests of more general, practical, and less questionable importance.

It will be the ambition of the present journal to become the medium of a free interchange of scientific thought among its readers, to stimulate to research and original effort and to furnish in a readable form, as an aid to efficient professional work an epitome, from month to month, of what is being done throughout the medical world, and more especially of what is transpiring at the great medical centres. It hopes ever to be found active and zealous in the support of the great underlying principles of medical ethics, those principles which are recognized and enunciated by the accredited authorities. It will welcome to its pages the discussion of any question of interest so long as such discussion shall be conducted in a courteous and impersonal manner. There is a strong tendency in the parties to a controversy to deal in personalities, and so long as the writer is dignified and gentlemanly, a certain flavor of the personal is in itself not strictly objectionable and we can imagine cases in which it would be difficult to avoid it; but the editors will reserve the right to discriminate and promise that no language not strictly gentlemanly, will be admitted to these pages. It is possible to criticize, and that somewhat caustically, without doing violence to that sense of propriety which gentlemen recognize by common consent. The days of gross personalities in science, however, are fast waning and it will be one of the aims of this journal to assist in the creation of an opinion on this subject such as no man, how prominent soever his position, may be indifferent to.

The circumstances attending the establishment of the DETROIT MEDICAL JOURNAL furnish grounds on which to build bright hopes for the future. Success, however, without the earnest good-will and active co-operation of the profession, is impossible. The present venture is assured of the former of these qualities and has a tolerably well-grounded hope that the same will not be wanting. It is sincerely hoped that there may be such a union of these as will enable the management to make such a journal as will reflect honor not only on itself, but also on the profession of the Peninsular State.

It has been deemed desirable in the conduct of this journal that the editors in their relations to the profession should retain their individuality. This desire will not be attributed to any personal motive on the part of either, but simply that that attraction which is inseparable from a personal intercourse may not be wanting. The fact that the writer of a given article is known, invests it with a certain degree of interest to the reader. Moreover, in a dual editorship, it may frequently be desirable to know to whom to give the credit or on whom to place the onus of ideas advanced. The editors, also, may not be in perfect accord on topics which either may wish to discuss, and in such cases the one may not wish to shoulder even half the responsibility of the others utterances. The authorship of all editorials therefore will be designated by the initials of the writer. In order, also, that there may be no clashing in the editorial department, any article written by one editor to which the other may object, will appear under the head of correspondence and thus relieve the journal of any responsibility for the views advanced.

It is here stated on behalf of the publishers that the subscription price of the journal has been placed at the lowest possible figure for a publication of its size. It will be necessary also, even at this figure, in order to ensure a reasonable profit on the investment, for all the subscribers to the old journals to transfer their names to the new subscription list. It will be necessary also to adhere rigidly to the cash system, and when this is understood, any who do not receive the February number need be harassed by no doubts as to the cause.

J. J. M.

Professional Matters in Detroit.

The past year in this city has been markedly a healthy one, and this fact, together with the financial depression, the effects of which have not escaped the profession, has made it a trying one to medical men. In the practice of medicine, as in commercial matters, there are some who have successfully met the reverses peculiar to their calling, but the many failures during the past years in business circles have had their counterparts in the financial embarrassments of medical men. That there should be any necessary connection between commercial depression and the affairs of the medical practitioner, may not at first glance be manifest, but that such a connection exists, is nevertheless a fact. That a scarcity of the circulating medium renders collections for services rendered very difficult in many instances, is self-evident and it is scarcely less evident to those engaged in active practice, that the *vis medicatrix naturæ* has during the past year been allowed to do its own work unassisted by medicine to an extent not previously known for a great many years, and this from a lack of the wherewithal on the part of patients to fee the physician. This stringency of money matters has developed habits of economy in the necessaries as well as in the luxuries of life, and whether the physician's services are classed among the latter or the former of these, it is a fact that he is not called upon with nearly the same promptness in cases of sickness as when business in the trades and in merchandise was more active. In the majority of instances where the family physician is now called into requisition, something more than his mere presence, with the hope and confidence which that presence inspires, is necessary to aid perverted nature in setting herself right.

The dullness among practitioners which is reported from all parts of the State, and from different sections of the country, is doubtless largely owing to the cause above mentioned, but that the general good health of the community and freedom from diseases of an epidemic nature have been important factors in the causation, is not less certain. As we have intimated, the past year has been an unusually healthful one and we speak advisedly as far as this city is concerned. With the exception of the slight endemic of small-pox in the early spring, nothing of an epidemic nature has prevailed, to any considerable extent. In the months of January and February there were a number of fatal cases of measles and also a few grave cases of scarlatina, but as a rule these diseases were mild in their nature and sporadic. The summer, notwithstanding the mild and open winter which preceded it, and which it was thought would predispose to much sickness during the heated term, was singularly free from the diseases which are peculiar to that season and which prevailed to a serious extent and with severe fatality in some of the larger eastern cities. In all, save one particular the mortality reports of the past year, notwithstanding the increased size of the city, show an improvement in the death rate as compared with previous years. The exception is in the case of pulmonary consumption, that *bete noir* of science, the ravages of which neither sanitary regulations nor the improvements in therapeutics nor the discoveries in materia medica seem able to control. While the public, however, have so much cause for rejoicing there is still in this city a threatening danger, and that is of an epidemic of small pox. Since the prevalence of this most loathsome of all diseases last spring, the city has not been entirely free from its presence. The pest house has been closed for only a week during the whole year. With the advent of warm weather which brought with it the possibility of a free system of ventilation and the necessary sun-light and moisture for the production of the great enemy of small-pox, ozone, the disease materially subsided but did not wholly abate, and since cold weather has set in, the smoldering flames are being fanned into a flame with the prospects of that becoming a conflagration. Usually efficient and alert to duty, our health officers manifest in this matter a most culpable apathy. We justly pride ourselves on our never-failing supply of pure water, our thorough system of sewerage and our broad and well-paved streets, but even these are not prophylactic against small-pox. Nothing but a general and effective system of vaccination can prevent its spread. Small-pox is a blot on the fair name of any civilized community. Its existence is a reproach to a people. We will refer to this matter again.

J. J. M.

Memoranda.

The "School of Medicine of Paris" is to be tripled in size.

On January 1, 1877, the *Clinic* passed into the hands of Dr. Roberts Bartholow.

A new epidemic of small pox has made its appearance in London, England.

The widow of the celebrated physiologist, Sir Charles Bell, F. R. S., died recently in London, Eng., at the age of 94.

Dr. John J. Billings is professional advisor to the Trustees of the embryo "John Hopkin's Hospital," Baltimore, Md.

Dr. Grainger Stewart has been elected Professor of Medicine, to fill the vacancy caused by the death of Prof. Laycock.

The American Dermatological Association will hold its second annual meeting at Niagara Falls, the first Tuesday in September, 1877.

The new clinical professors of the University of Pennsylvania are insisting upon a share in fees and in the final examination of the students.—*Boston Journal.*

Dr. Thos. Dwight has resigned the Professorship at the

Maine Medical School and Dr. S. H. Weeks, of Portland, is his successor.

Dr. J. A. Octerlony has resigned the chair of Materia Medica in the Louisville Medical College and the Kentucky School of Medicine.

The Medical College of the Pacific at its late commencement graduated twenty students, and Medical Department of the University of California an equal number, the latter graduating one woman.

The management of the St. Louis (Mo.) City Hospital has excluded medical teachers and students from its wards. All privileges accorded to the regular schools are given to the exclusive schools.

The *British Medical Journal*, Nov. 1876, says that the London Homœopathic Hospital, which a few years since contained sixty-five beds and was filled to overflowing, now contains but twenty-six patients.

Subscriptions for the Transactions of the International Medical Congress will be received at $6 per copy until Jan. 15, 1877, by Dr. C. Wistar, 1303 Arch street, Philadelphia. After the above date the price will be raised.

The total imports of drugs for the fiscal year were four hundred and seventy-six million dollars, while the total exports were five hundred and ninety-six million dollars—a balance in our favor of one hundred and twenty-million dollars.—*Medical and Surgical Reporter.*

The late Dr. W. W. Moreland, of Boston, Mass., used to advise patients on their return from a winter resort in the South, "to follow the strawberries," and thus escape losing the benefit of a winter's exile by a premature return.

The winter sessions of the Philadelphia medical schools opened with unusually large classes.—(*Bost. Jour.*) A result due to the Centennial advertising of these schools per the exhibition and the large number of medical associations meeting in Philadelphia the past summer.

The practical foundation of culture and virtue is food, good and abundant. A family half starved or improperly fed for a few generations, cannot produce vigorous brains. Whatever vigor they have goes to the reproductive organs—*Medical and Surgical Reporter.*

The *Gazette des Hosps.* report the case of a man whose pulse was only 21. The beats of the heart were regular—and excepting a hydrocele, the man seemed well and jovial.

Dr. R. B. Carter, in his recent work on the Eye, says that "the safest man is he who never invented an instrument in his life, but whose daily practice affords evidence that he can use those which have been invented by others."

The Rhode Island Medical Society at its late meeting adopted a resolution declaring that among the most prominent causes of ill health among school children are "attending balls and parties, sitting up late at night, eating improper food, drinking tea and coffee, and especially reading works of fiction."

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

CONTRIBUTIONS TO REPARATIVE SURGERY. By Gurdon Buck, M. D. Cloth; pages, 276. 1876. New York: D. Appleton & Co.

In this volume we have the author's matured experience in the treatment of deformities produced by destructive disease or injury, congenital defects from arrest or excess of development and cicatricial contractions from burns. The work is abundantly illustrated by engravings from photographs. These photographs were taken before treatment during successive operations, and after completion of treatment. Albums containing the original photographs are placed in the Army Medical Museum at Washington, and the Pathological Museum of New York Hospital.

These portrait figure illustrations are in a very complete sense a history of each operation. We know of no work in which engravings more conclusively teach the peculiar value of plastic surgery than the one before us.

After an introduction of twenty pages, the book is devoted to the details of twenty-nine cases. For convenience of description, these cases are divided into three classess. (1.) Those with loss of parts involving the face, and resulting from destructive disease or injury. (2.) Congenital defects from arrest or excessive development. (3.) Cicatricial contractions following burns.

Some important general observations are as follows: As to the choice of material in transplantation of skin, care should be taken that it be in a normal and healthy condition—not cicatricial. A patch of skin intended for transfer should have its long axis correspond to the direction in which the arterial vessels are distributed, and the free extremity of the patch should point towards their destination. To secure precision in adapting a patch of skin to a new locality, the author recommends as satisfactory the following method: The space to be filled up is perfectly prepared, and an exact pattern of it cut from oiled silk; then the pattern is applied to the surface from which the new material is to be taken. Small pins are then temporarily inserted erect in the skin at intervals around the pattern, and at a distance of one line from its margin, as an allowance for shrinkage. A larger allowance must be made for the length of the patch of skin beyond that of the pattern itself, so as to permit the patch to be brought around edgewise to its new location without causing any strain at its pedicle. The pattern may now be removed, the pins alone serving as a sufficient guide.

The three methods of transfer are clearly stated, viz.: that by approximation, by sliding, and by transfer to a distance. As to the treatment of the raw surface from which the patch of skin is taken, the following is advised: After all hemorrhage has ceased, the raw surface should be coated first with a uniform layer of scraped lint, and then with an additional layer of lint saturated with collodion. This dressing soon stiffens and forms an artificial scab, which will remain adherent from six to ten days, when it becomes detached by suppuration.

As to the cases, twelve have been already published in various medical journals, so that in a general way the profession is familiar with them. Still all general surgeons will buy this classical work, place it on their shelves, and before undertaking similar operations they will read Buck's experience. Further, it perfectly demonstrates that surgery advances, and thus attains results wonderful in their far reaching beneficence. The mechanical execution of the work is in Appleton's best style. L. C.

ON COUGHS, CONSUMPTION, AND DIET IN DISEASE. By Horace Dobell, M. D., F. R. M. C. S., etc. Cloth; pages, 220. 1877. Philadelphia: D. G. Brinton, 115 S. Seventh St.

This work is a compilation by Dr. Brinton, from the published lectures of Dr. Dobell, of London. The compiler fitly says that the author's clear style, large experience and thoroughly practical mind peculiarly adapt him to instruct in the delicate refinement of physical diagnosis. The frequency and grave character of the pulmonary diseases render their study of the first importance to the general practitioner. Although presenting somewhat the appearance of a scrap book, this compilation has been judiciously and carefully made. The practical utility of the material presented commend it to the attentive consideration of every practitioner.

Dobell emphasizes the fact that "*a safe diagnosis must be based upon the conjunction of evidence from many sources.*"

He maps the chest out according to *obvious anatomical points*, such as the clavicle; its two ends and middle; the scapula with its angles and spine; the sternum with its divisions; the ribs with their numbers; their cartilages, etc.; the axillæ; the nipples; the intercostal spaces with their numbers; and the spaces above and below the bones mentioned.

His description of the means by which all the abnormal sounds produced by disease in the chest may be detected, is clear, and the means such as any student can possess.

Concerning the diagnosis of early phthisis, he says: "The absence of reliable signs of the earliest stage of tubercular deposit cannot be too forcibly impressed upon the young practitioner, who, with creditable zeal, is too apt to think and naturally prone to hope that by sufficient diligence, experience and care he may insure that no tubercle shall escape his searching examination. In this belief he will be often led to fancy that he has detected the presence of tubercle, where it does not exist, and to assume its absence where it really lies concealed."

A variety of physical signs are given, by one or more of which the deposit of tubercle may be first recognized, viz., prolonged respiratory sound; jerking respiratory sound; deficiency in the respiratory sound; cough or harsh respiratory sound; persistent signs of bronchitis confined to one apex; cogged wheel rhythm of respiratory sound; crumpling, buzzing, humming, kettle-singing and arrow-root powder sounds, and lessened respiratory action, with prolonged expiration.

Hæmoptysis as a symptom is classified as follows: (1.) In a large number of cases it is simply the result of congestion and disintegration of a highly vascular organ in the course of a disease of constitutional origin. (2.) In a large number of cases it is simply the result of congestion and disintegration of a highly vascular organ in the course of diseases of local origin. (3.) In a certain number of cases it is simply the result of accidents, over-distending the vascular system of the lungs and leading to rupture in the same way as similar over-distension leads to rupture of vessels in other parts of the body. Whether such over-distension is competent to cause rupture of vessels, the walls of which are not previously diseased, is a very wide question. (4.) In a certain number of cases it is the result of the bursting of small aneurisms in the lungs, formed in the course of lung disease.

Vesicular Emphysema, he believes, is produced by pressure applied to the inner surface of the air cells during respiration.

Winter Cough, in most cases, depends on a combination of some or all the following conditions, viz., dilated right heart, collapsed lung, emphysema, thickened naso-pulmonary mucous membrane with narrowing of the air passages, catarrh of the naso-pulmonary mucous membrane of greater or less extent, an undue susceptibility of the naso-pulmonary mucous tract, local and general conditions favoring or producing susceptibility of the mucous membrane, cough and short breath; symptoms of the existence of the conditions already enumerated, dilated tubes, disintegration of lung tissue. Each of these is separately considered, and its relation to the cough pointed out.

To cure a cold without lying in bed, staying at home, or in any way interfering with business, is a desirable accomplishment. Dr. Dobell gives the following method, to be followed on the first appearance of the symptoms: (1.) Give five grains of ses. carb. of ammonia and five minims of liquor of morphia in an ounce of almond emulsion every three hours. (2.) At night give ℥iss of liq. of acetate of ammonia in a tumbler of cold water after the patient has got into bed and been covered with several extra blankets; cold water to be drunk freely during the night, should the patient be thirsty. (3.) In the morning the extra blankets should be removed, so as to allow the skin to cool down before getting up. (4.) Let him get up as usual and take his usual diet, but continue the ammonia and morphia mixture every four hours. (5.) At bed time the second night give a compound cathartic pill. Only twelve doses of the mixture are needed in a case.

We have quotations enough to illustrate the practical scope of the work. It is a book to be profitably read by all — student or practitioner. While it contains little that is absolutely new, it is full of practical lessons by a master of the entire subject. We could have wished that the author had been his own compiler. The book is well printed on good paper. L. C.

ANNUAL REPORT OF THE SURGEON-GENERAL, U. S. A. 1876. *Paper; pages, 22.*

In his report for last year, the Surgeon-General stated "that owing to insufficient clerical force, 5,765 official demands for information as to the cause of death in case of deceased soldiers, and the hospital record of invalids," he asked for an increase of this force. But owing to the legislation of the last Congress, twenty-six clerks were discharged. Further, the demands for this class of information increased fully one-fourth over those of the previous year. Hence, at the commencement of the present year, 31,171 cases remained to be disposed of. As a practical result, the aforementioned applications wait at least nine months after their receipt before they can be answered, and just applications for pension, made by needy widows and orphans, are delayed in the office for that time, a delay which would not occur if adequate clerical force were provided." The tabulation of the surgical data of the army, the continuation of the surgical portion of the Medical and Surgical History of the War, the compilation of descriptive catalogues of the surgical and anatomical materials of the Army Medical Museum have all advanced very slowly, owing to the reduced clerical force. The library has increased during the year by about 2,000 volumes, exclusive of pamphlets.

It is earnestly recommended that Congress authorize the printing of the MSS. catalogue of the library, and it is our hope that Congress may heed the suggestion. Progress is reported on the medical and surgical history of the war.

Of 175 candidates for appointment in the medical corps, only fifty were found qualified. With the material at his command, Surgeon-General Barns makes an excellent showing for the year—one that does honor to the medical profession.

L. C.

TRANSACTIONS OF THE COLORADO STATE MEDICAL SOCIETY. 1876. Paper; pages 90.

This pamphlet is issued with more than usual neatness and care. It contains the minutes of the three days' session, president's address and reports of several committees, a paper on neuralgia as a prevailing disease in this climate by Dr. T. G. Horn, one on a new elastic extension apparatus for use in spinal curvature, by Chas. Dennison, M.D., and one on renal calculus by H. A. Lemen, M.D.

Dr. A. Stedman presents a report upon features and characteristics of a few diseases peculiar to Colorado. In spite of the facts that the atmosphere is deficient in moisture, and that the soil absorbs rain and snow as fast as they fall, rheumatism and nasal catarrh prevail. The convalescence from acute diseases is more tardy than in lower countries. Persons in ordinary health and flesh find usually that a prolonged residence in this country reduces the weight, and among women and persons of nervous temperaments more especially, this decrease in weight is accompanied by a condition of nervous prostration, which is in fact but the depression which follows the excitement of the first months of their residence in Colorado. Sleep is lost; the system becomes anæmic, and the whole train of nervous, and in women, uterine disturbance, follow. In man this climatic action is less marked, yet few even of the stronger sex, after a few years' residence here can go without sleep as readily, or perform as much physical or mental labor as they have been accustomed to do.

Dr. H. A. Lemen, in a report on Pulmonary Consumption, gives in detail forty-four cases of phthisis, in which the results of careful physical exploration are given; treatment, progress of case, etc. Of the entire number nineteen improved—or a little over forty-three per cent. Some cures were effected; sixteen cases were fatal after an average duration of the disease for forty-two months. This is far below Dr. Williams' 198 observed cases, the average duration of disease in which was seven years and eight and seventy-two one hundreth months. He says that certain classes of consumptives die sooner in Colorado than in lower altitudes, viz: those in which one lung is extensively involved, or both to a less extent; in which the inherent tendency to dissolution is obstinate and continuous, the digestion and assimilation greatly impaired, the nervous system profoundly disturbed and depressed or exceptionably irritable, the mesenteric glands involved and an unusually high pulse and temperature standard. L. C.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA, 1876. Paper; pages 886.

Besides the minutes of the meeting this volume contains the President's address; addresses on Surgery, Obstetrics and Hygeine; a paper on Criminal Abortion; reports from twenty-two county societies; constitution of the society and list of members. In his address on Obstetrics Dr. R. Davis discussed placenta previa with special reference to its treatment. Dr. A. Nebinger, in his paper on criminal abortion, presented some startling facts gleaned from Philadelphia. Circulars were sent to the leading physicians in that city; all said that abortions were on the increase. As to the causes of the crime, the following were given: to hide shame; to avoid the inconvenience incident to pregnancy; fear of pains and risk of labor, but mainly to avoid the labor and expense of raising children and the interference with pleasurable pursuits, fashions, etc. The writer thinks that the ignorance of the physiological laws of conception and development of the fœtus is more effective in causing the commission of the crime than all else combined. He points out the fact that few abortions occur among the Jews or Catholics, and that most are among the Protestants. This is accounted for by showing that the former are taught by their religious instructors the sacredness of fœtal life while the latter are left in total ignorance. The obvious remedy is to have the Protestant clergy instruct their flocks in this matter. The reports from the county medical societies were of usual interest.

L. C.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF THE STATE OF MISSOURI, AT ITS TENTH ANNUAL SESSION, APRIL 1876. Paper; pages 79.

The first noticeable feature of this report is the elegant manner in which it is issued. Twenty pages are taken up by the minutes of the meeting. The annual address was given by the President, Jno. F. Hodgen, M. D. It was confined to the discussion of "nerve sections for neuralgia," and "reflex induration for penis." His views on the former were illustrated by reports of five cases and of the latter by one case. Dr. Wm. Dickinson reported a rare case of "bepharospasm." Dr. A. J. Steele presents quite a full consideration of "torticollis." The report on surgery contained a paper by Dr. E. H. Gregory, Dr. J. W. Trader and Dr. A. P. Lankford. The last paper admirably set forth some of the advantages of resection of the knee joint.

L. C.

TRANSACTIONS OF THE NEW HAMPSHIRE MEDICAL SOCIETY, 1876. Paper; pages 170.

The reports of delegates and various committees, and the obituary notices, are well prepared and of special interest to the profession of New England. A general paper by Dr. A. B.

Crosby, on cleanliness as a lost art in surgery, is of much value and would have been interesting had it not been *previously* read before a New York Medical Society and reported to the profession. The editing of the report was done with great care by the Secretary, Dr. G. P. Conn, of Concord, N. H. L. C.

A REPORT ON THE DEATH RATE OF EACH SEX IN MICHIGAN, AND A COMPARISON WITH DR. FARR'S LIFE TABLES OF HEALTHY DISTRICTS OF ENGLAND, WITH A STATEMENT CONCERNING THE INFANT MORTALITY IN MICHIGAN. Paper; pages 16. Reprinted from last Report of the American Public Health Association.

The actual death rate in the United States has never been positively ascertained. The tables here presented are based entirely upon evidence of the death rate in the state, the corrections for omissions in enumerating being based upon the following principle, heretofore untried in any locality. The principle is briefly stated as follows: "The number actually omitted because of a delay of a given time, as for instance of one year, is ascertained by comparing the results of two separate enumerations of the deaths in the same locality during the same time, one enumeration being made at one time by one set of officers, the other at a different time by a different set of officers. We thus find the proportion of deaths omitted after the lapse of a given time. It is assumed that the proportional number omitted is in proportion to the length of time which has passed since they occurred and before their enumeration." The results thus gained are of permanent value and the method pursued encourages the hope that from larger data it will yield proportionately greater results. L. C.

TRANSACTIONS OF THE TEXAS STATE MEDICAL ASSOCIATION, 1874, 1872 AND 1873. Pages 208.

This pamphlet contains much of interest, but more of trash. We trust the meeting for 1876 can make a better showing.

Detroit Medical Journal.

NEW SERIES. VOL. I. | FEBRUARY, 1877. | No. 2.

Original Communications.

Some Anomalous Cases of Typhoid Fever, Illustrating the Thermometrical Variations in the Onset and Course of the Disease.

BY PROF. GEO. E. FROTHINGHAM, M.D., ANN ARBOR, MICH.

Although typhoid fever has been so thoroughly studied, there are still connected with it many questions of interest not yet settled, and which can only be determined by a more extended and careful observation of cases. The question of contagion in this disease is not yet decided and good authorities still deny its contagious character, although the contributions of facts and cases have been so numerous, authentic and conclusive that it would seem that no text-book which denies this fact without fully presenting the evidence in its favor could be considered a safe guide for the student in studying this disease.

The thermometry also seems to be among the questions that have been too hastily settled by some authors, and the diagnostic rules they have deduced are altogether too arbitrary, and calculated, as I believe, to frequently mislead those not familiar with its various phases.

Thus Dr. Aitken (Science and Practice of Medicine, Vol. 1, p. 356, 2d Am. Ed.) makes the following statement in regard to the thermometry of this affection:

"When the temperature on the first or second day reaches to 104°, or where in a child or in an adult the evening temperature between the fourth and sixth day does not reach to 103°, where in the second half of the first week there is considerable abatement of the evening temperature, we have, in such cases, certainly ***not to do with typhoid fever.***"

This statement is derived from the published statements of Wunderlich, but is somewhat more positive than the conclusions of that author based upon the seven hundred cases observed by him.

That the above rule applies in the majority of cases is very certain, but that the exceptions are very numerous I fully believe.

As the above teaching seems to be universally accepted I am led to report the following facts observed by me during the past few years.

The first case I shall quote is that of B. B., a patient aged 20, seen by me first on March 13, 1875. This patient had felt perfectly well until the day preceding my visit. He had no symptoms of disease whatever. On the afternoon of that day (Mar. 12) he visited a bath house and took a warm bath lasting about half an hour. At the close of this warm bath he attempted to take a cold shower bath, but it occasioned such a spasm of the respiratory muscles that he was obliged to immediately desist. He felt no further discomfort except a slight headache until seven hours after the bath, when he was taken with a chill lasting three-fourths of an hour, and followed by a fever.

I saw him at 6 p. m. on the 13th, about twenty-four hours after the chill. The following is the record of pulse and temperature, as accurately kept through the course of the disease:

March	13,	6 p. m.,	pulse,	112;	temperature,	104¼°.
"	14,	10 a. m.,	"	110	"	102¾°.
"	15,	6 p. m.,	"	116	"	104½°.
"	16,	5 p. m.,	"	108	"	104°.
"	17,	11 a. m.,	"	100	"	103°.
"	17,	5 p. m.,	"	111	"	104⅛°.
"	18,	10 a. m.,	"	100	"	103°.
"	18,	5 p. m.,	"	108	"	104°.
"	19,	5 p. m.,	"	110	"	104°.
"	20,	3 p. m.,	"	108	"	104°.
"	21,	11 a. m.,	"	94	"	102°.
"	22,	6 p. m.,	"	86	"	102¼°.
"	23,	12 m.,	"	84	"	101°.
"	24,	7 p. m.,	"		"	100°.
"	25,	5 p. m.,	"	88	"	101°.
"	26,	8 p. m.,	"	80	"	101°.
"	27,	6 p. m.,	"	78	"	101°.
"	28,	7 p. m.,	"	74	"	100°.
"	29,	7 p. m.,	"	70	"	100°.
"	31,	6 p. m.,	"	72	"	100°.
April	2,	12 m.,	"	72	"	99 7/10°.
"	4,	5 p. m.,	"	72	"	99½°.
"	6,	5 p m.,	"	72	"	99°.
"	8,	5 p. m.,	"	72	"	98½.

There was not the least evidence of any complication in this case and the symptoms were such as to mark it plainly as one of typhoid fever. The eruption appeared on the tenth day and was sufficiently characteristic. There were other symptoms also, sufficient to confirm the diagnosis.

The point of interest in this case, that bears upon the matter in discussion, is the sudden onset of the disease with a temperature of 104¼°.

The consideration of the action of the bath in exciting the attack would be of interest, but space allows only this brief reference to it.

Case 2.—R. B. C., a young man, aged 18, was taken ill Nov. 1, 1874, with no premonitory symptoms whatever. My first visit was made in the evening of that day, and the temperature was 104½°. On the next morning, the temperature being down to 100°, full anti-periodic doses of quinine were ordered and taken during the day. In the evening the temperature rose again to 105°. The subsequent course of the case was such as to characterize it fully as one of typhoid fever. The eruption appeared on the 10th day and was abundant, appearing in successive crops. There was also diarrhœa with the characteristic color to the discharges. The case in the latter part of its course was treated by my colleague, Dr. Maclean, who also regarded it as an undoubted and uncomplicated case of typhoid fever. The patient convalesced on 22d day.

Case 3d.—M. M. a young lady of 17, was taken ill Aug. 11th, 1874. The history given me was that she had felt well until a few days previous to her attack. For these few days she had felt languid but not especially ill. On the day specified she felt chilly and the chill was followed by fever. I saw her on the 12th at 8 p. m. The temperature was then 104°. There was no evidence of local inflammation to account for the fever. The next day at 11 A. M., the temperature was 102½°, rising to 103½° by 7 P. M.

The subsequent record showed,—

August	14,	9	a. m.,	temperature,	101½°.
"	14,	8	p. m.,	"	102½.
"	15,	7½	" "	"	103.
"	16,	8	" "	"	103.
"	17,	5½	" "	"	104¾.
"	18,	8	" "	"	103.
"	19,	9	" "	"	104.

August 20,	5	p. m.,	temperature,	104¾.
“ 21,	7	“ “	“	104¾.
“ 22,	8	“ “	“	105.
“ 23,	8	“ “	“	104½.
“ 24,	8	“ “	“	105.
“ 25,	8	“ “	“	104.
“ 26,	8	“ “	“	102.
“ 27, patient died at 6 a. m.				

No post-mortem examination could be obtained, but the symptoms were such as to characterize this case as uncomplicated typhoid fever, and the only point of interest is the high temperature at the commencement.

In my own practice two other cases of this kind have occurred, one having a temperature of 105½° and the other 104½° on the second day of the fever.

A case of typhoid fever recently occurred in the practice of my colleague, Dr. Maclean, that commenced with a high temperature, and otherwise ran a remarkable course. I subjoin a few brief notes which he has kindly furnished me:

J. D., aged 23, was seized with a chill on the evening of June 20, 1875. The body temperature, taken at the time, was 105°. Next morning the temperature was down to 99°, and the case was regarded as one of ague. Full doses of quinine were rapidly given and the effect obtained. Nevertheless, the evening temperature rose to 105½°. The next evening the temperature was up to 106°, and on the fourth it rose to 107°, remaining at that and 107½ until the patient's death, which occurred on the seventh day from the attack. There was diarrhœa, delirium, and great restlessness through nearly the whole attack. A post-mortem examination was thoroughly and extensively made, every important organ was examined and no pathological change could be found except a disease of Peyer's glands. These were found thickened and vascular, and presenting the condition characteristic of typhoid fever. At the post-mortem examination several physicians were present, and all concurred in pronouncing the case one of typhoid fever.

In this case not only did the disease commence with a temperature above 104, but after the second day the usual morning abatement was absent and the fever continued with little variation to the end, and this too with no local inflammation to account for it, save such inflammation of Peyer's glands as is supposed always to be present in this fever.

In presenting these cases I have tried to avoid all the details not bearing especially upon this subject, my object being to call attention to this one feature, hoping to hear from others who have used the thermometer in their diagnosis of this and other affections.

The Sympathetic Nervous System.

A PAPER READ BEFORE THE WAYNE COUNTY MEDICAL SOCIETY BY DR. C. HENRI LEONARD.

The custodian of nutrition, secretion, and involuntary motion—indeed the engineer of all animal life—is so new a field to the anatomist as well as to the physiologist and pathologist, that I fear I shall but cumber your ears with many words in endeavoring to treat of it before you.

ANATOMY. —In a dissection of the cadaver we find disposed along both sides of the bodies of the vertebræ pairs of gangliform enlargements, linked together by little chains of nervous tissue extending from the cranium to the coccyx. Branching off from these ganglia at irregular intervals there are other filaments centering around some common points, and these, after a slight, web-like expansion (plexus), send off smaller branches to the viscera and vessels. These ganglia, with their chains of connections and branching filaments and plexuses, make up, anatomically, the *nervus sympatheticus.* In man we find this system the greatest developed; indeed, just to the degree that we find this system developed in an animal do we find that animal among the higher orders, and as a direct corollary we find that just in proportion to the development of this system is the development of the circulatory and nutritive functions manifested. These ganglia, on dissection, are found to be of an ashy-grey color, reddened somewhat by the presence of nutritive capillaries that may have remained unemptied after death, and also by a natural pigmentary cell deposition. They are invested by cellular tissue; are, upon maceration, found to consist of filaments, with an inter-filamentary substance of greyish, pulpy matter.

There are twenty-nine pairs of these ganglia (exclusive of the numerous *peripheral* ones in the walls of the heart, uterus, intestines, &c.), arranged along the spine, and each has three sets of branches.

(*a*) Those of intercommunication.

(*b*) Of communication with the cerebro-spinal nerves, except the olfactory, optic and auditory.

(*c*) Branches of distribution, or of organal supply. Besides these branches of supply it receives branches from the spinal system. And as is true of all nerve trunks the fibrillæ are separate and distinct from each other, so that even in the branches of intercommunication, where the white or spinal filaments are found, they each retain their individuality, and can be traced back to their origin. There is inosculation of the two sets of fibres though no inter-fibrillation. I wish to insist on this anatomical fact, for, to me, it affords a better explanation of certain phenomena than some of the theories now in vogue which seem to have lost sight of this anatomical fact.

These white nerve fibres are called by the older physiologists, branches of the ganglia nervi sympathetici. I do not take them to be such; I believe them to be the branches from the cerebro-spinal axis to the sympathetic bearing the motor and sensor filaments from the cord.

The branches of distribution from these ganglia reach all the blood vessels, the abdominal and thoracic viscera, and all the organs of special sensation, in fine are systemic in their ramifications.

The cervical ganglia essentially supply the heart with the filaments from this nervous system, viz., by the superior, middle and inferior branches. From the dorsal ganglia are given off the splanchnics, the two great visceral nerves; the "greater" being formed by a union of branches from the 6th to the 10th; the "lesser" by the union of branches from the 11th and 12th, the former terminating in the semi-lunar ganglion and the latter in the renal plexus. Branches from the semi-lunar ganglia go to form the "*solar plexus*," the great source of sympathetic supply to the viscera of the abdomen. In these plexuses are found the ramifications of the different cerebro-spinal nerves.

The PHYSIOLOGY of this system is, as I have said, but little known. Indeed, some authorities go so far as to say that its influence upon the system is *nil*; prominent among these stands Dr. J. C. B. Williams. Magendie even goes so far as to ask "*if it is a nerve at all!*" Dr. Proctor thinks it is *only* for regulating the *tonus* of the arterial system.

It is not necessary to go further into the individual "opinions" of authorities; these are sufficient to show you the status of "beliefs" prior to 1850. Whether at the present day we have any such doubters I know not. The general opinion is, however, something as I stated in my first sentence. The experiments of Bernard, Flourens, Weber, Sir Astley Cooper, Brown-Sequard, Dalton, Flint, Vulpian, Rœver, Schiff, Meryon, &c., would seem to put at rest the cavil of Williams, Magendie, and their school. Besides being the *tonus* of the circulatory excretory and secretory systems, it exercises an "inhibitory action" over the other nervous functions, sometimes changing their usual manifestations entirely, by a process of substitution. As, for instance, an irritated or inflamed uterus producing *nausea*, instead of giving a regional manifestation of its disease by pain, &c., within the pelvis. One oldish author, Philip, also Wagner, looked upon the sympathetic ganglia as simply re-inforcers of nervous power; that is, the force traversing its proper nerve filament from the spine, passes through the ganglia of grey matter (similar to that which gave origin to the force—the grey matter of the brain) of the sympathetic and adds unto itself thereby more force, or power; just upon the same principle that we join three or more cells together to increase the volume of the current that we wish to employ from our galvanic batteries. It seems quite probable to me that this might be so, though not in such an exclusive sense as they proposed it. The phenomena, in part, are explanable upon the theory of "inhibitory action." Nerve power and electricity are certainly easily interchangeable, if nothing of kin, and this fact alone would seem to give great weight to the old theory of Philip as being, at least in part, true. This being the case, then, we have for our sympathetic nervous system three functions, viz: that of *tonus* to the circulatory and other organic functions; 2d; that of inhibition; 3d, that of re-inforcement to the previously induced nerve current from the cord or brain.

The contractility of the arterial vessels was first pointed out either by Senac or by Ens; the latter's work was published in 1745; authorities differ as to which of these should have the credit. Not until 1851, however, was the vaso-motor system demonstrated. To Bernard belongs the credit of this. His discovery, making known the dilatation of these vessels after section of their sympathetic filaments, was only half of their nervous influence upon the parts to which they were distributed. To Brown-Sequard is due the credit of demonstrating the contractility of arterial vessels by stimulation of the vaso-motor filaments. This was at about the same time. To him is also due the discovery of the "reflex inhibitory action" of the same system. In 1851 he had noticed that a plunge of one hand into cold water brought on a contraction of the capillaries and a lowering of temperature in the other. Indeed, the period extending from 1850 to 1852 (including the latter), marks the era of all the important discoveries, so far, of the physiological action of the nervous system under discussion.

There is yet another point under discussion, and it is in a fair way of being soon settled, I think, and that is, the *true* relation between the sympathetic and cerebro-spinal system. Prof. Jewell's theory seems the more plausible, as it is more complete. Vulpian, Waller, Bidder and Valkman recognize only in the grey filaments from the ganglia to the cord a proper tonic supply to the vessels of the cord and the pia and dura mater. To this Jewell adds, "a portion of these fibres pass into the cord for conveying impressions into the cord for reflex purposes in reflex actions."

Recently, and chiefly through the labors of M. Vulpian, it has been demonstrated that the walls of the veins contain unstriped muscular fibres; if this be so, *a priori*, it would only be in the domain of analogy to attribute to the veins the power of contractility through nervous stimulation, and the power of dilatation through nervous paralysis. M. Vulpian has even proven this, and cites other authorities that have witnessed similar phenomena. There seems, however, to be a limit to the contractility of the veins, for in some varieties the muscular fibre is not found; as for instance, in that of the brain sinuses and its larger vessels. Possibly upon this ground (the contractility and dilatility of the veins) the physiological explanation of "an erection" (of either the male or female organs) is more satisfactorily explained than by any other way. I shall refer to this again. The capillaries, I believe, have not been recognized as harborers of the sympathetic muscular fibre, that of the unstriped order, hence, are beyond the direct influence of this system.

We have now reached, so far as the researches of the action of this system under different conditions have been carried, the following conclusions: Without naming authorities or experiments we find that

1. Any stimulation of this system produces, in the parts supplied by the filaments stimulated, *(a)* a contraction of the arteries and veins through the *tonus* exerted upon their unstriped muscular coatings; *(b)* an increased peristaltic action of the bowels, and accelerated physiological function of the other viscera; possibly as a result of the irritation occasioned by the diminution in the volume of the organs resulting from the diminution in size of the blood vessels; *(c)* if not a direct result, it is certainly assisted by this volumetric change.

2. That any paralysis of this system produces phenomena essentially the opposite of the above.

I now pass to the consideration of some of the phenomena exhibited by the normal and the vicious action of this system. I have just spoken of how "an erection" is explainable upon the workings of the sympathetic. You have only to get a paralysis of the fibres supplying the corpora, &c., when you at once get dilatation of the arteries and veins—the reflex phenomenon that we call an "erection." The paralysis is easily explainable upon the phenomenon of arrest, that is, either by "thought" or the action of an amorous mind, of ascarides in the rectum, of an irritated prostate or bladder or uterus, full intestines (as after a hearty supper), the warmth of the back (from a feather bed, &c.); from any of these a nervous current may be established and conveyed by the cerebro-spinal nervous system to these ganglia, and so by its inhibitory action, check the tonic or normal action of the nerve cells that are custodians of the tonicity of the pelvic or sexu-organal vessels, and hence dilatation ensues. A continuation of this same action, or one similar, at last may produce the orgasm. Here, then, is quite a ready explanation of our spermatorrhœas and other sexual mal-functions. It is theory, I admit; so are all other conclusions upon the same subject. It seems the more plausible one to me, and so I give it for what it is worth. Treatment, at least, bears it out.

I give another example. Ex-mayor Barker was recently drowned in our river; he was a good swimmer, and also had a large, or fatty, physique, which was in his favor, yet before succor could reach him he was gone past recovery, although floating at the top of the water. The diagnosis was made, "death from apoplexy." Well, it might have been apoplexy, and it might *not* have been; the chances are as much against apoplexy as in its favor. To be apoplexy there must have been inter-cranial hæmorrhage, and pressure resulting from blood accumulation. Yet hæmorrhage was not necessary to have caused his death; indeed, I am inclined to think that there was no inter-cranial hæmorrhage; that death resulted from compression of the brain without hæmorrhage, and from asphyxia, (his face and feet were under water. though the back was above it). The physiological action of this sympathetic nerve explains the whole phenomena. You shower the abdomen or back with cold water, and immediately there is a dilatation of the cerebral vessels through the loss of their tonicity. Plunge a person into cold water and the same phenomena are observed. The peripheral sensor nerves here manifest an inhibitory action over the sympathetic cells that supply the tonus of the cerebral vessels, and a paralysis ensues; the result of that sympathetic paralysis being dilatation of the brain and brain membranal vessels, and, as a consequence, a compression of the brain pulp, and death ensuing just as certainly as if hæmorrhage had taken place. It isn't the hæmorrhage that kills, but it is the compression that the brain receives. Yet Mr. Barker had coupled with this compression, asphyxia, and this was everything against him, for the compression from dilatation is soon relieved, cerebral anæmia being finally the result of a cold plunge. I admit that this same dilatation might have caused apoplexy; but that is a long step in advance of what might have caused death. In other words, it is a poor financial policy to go to Toledo via Chicago. " Apoplexy" is getting to be a favorite shield for doctors to use to cover up their ignorance of physical functions. If we only had more *post mortems,* and less of this professional self-assurance, humanity and the profession would be the gainers; and less cases of " apoplexy" would be recorded.

Let us take another example. Old John Hunter insisted that a blow upon the abdomen would stop the heart's action. It was known long before his time that it did so stop, but it was only regarded as an accident rather than a necessary sequence. To this phenomenon this old surgeon could give no satisfactory answer. Brown-Sequard has solved it, and all through the action of this sympathetic nerve, that was unknown in Hunter's time. A paralysis of the nerve cells (peripheral, probably) that supply the *tonus* to the heart ensues, through an inhibitory action of the par vagum from the shock communicated to the diaphragm.

In peritonitis we have death from a similar reason—a paralysis of the cardiac sympathetic filaments. Probably this is an explanation of the success of the opium treatment.

In quite extensive burns of the skin we know death is imminent; not so much from uræmic poisoning as from excessive nervous irritation, which induces functional nervous disturbance. Sloughing of the duodenum almost invariably occurs, and by reason (to me) of the action the cerebro-spinal system of nerves (sensor, &c.), in conjunction with the sympathetic, which is custodian of the nutrition of this part. From lack of proper nutrition this gangrene or sloughing ensues.

This calls to my mind another malady that surgeons and physicians are taxed to their uttermost to prevent. I refer now to "bed sores," serious complications in the low nervous cases they accompany. Pressure is not the progenitor of these sacral sores, as physicians so commonly think. "Air cushions" are of little or no avail in warding them off, and are useful only in alleviating painful pressure upon the sore, and so give ease to the patient. The trouble is due, essentially, to nervous lesions—lesions of the cord or the nerves therefrom, that by their action check the proper nutrition of the parts involved. In some cases of these bed sores, sacral or on the nates sloughs occur within three days from an injury that confines a previously healthy man to his bed. Pressure could never have occasioned this, had the man nothing better than a saw-log to rest upon. Brown Sequard has proven by experiments upon dogs, which, when lying down, do not rest at all upon the back or nates, that an injury to the cord which causes an inflammation of it or its nerves, results in a slough of the nates just as we see in the bed-ridden cases of humanity. Want of nutrition, then, is the cause of these serious complications, and this arises from a disturbance of the sympathetic nervous system, with possibly the other system now proposed by Brown-Sequard that controls the chemical changes of nutrition. Carrying this on still further, the same author asserts that inflammation of the lungs is extremely common in certain brain diseases; and we all know that bladder, kidney and intestinal lesions are common, in fact the rule, after spinal lesions. The normal brain power is arrested by the abnormally acting cerebro-spinal cells, induced by irritation or inflammation, and a contraction of the arteries and stoppage of blood supply results.

In a great majority of our reflex uterine diseases it is this sympathetic system that is the mischief-worker, through its abnormal action. Neuralgias, that are systemic, numbness, prickings, aphasia, hemi-crania, insanity, etc., etc., of the uterine sufferers can all be traced to some fault of this system of nerves. Indeed, the vast majority of *all* nervous diseases have more or less assistance from this nerve, if their entire dependence be not upon its malfunction. This is, of course, explainable upon the phenomena of inhibition. Our epileptic seizures are now regarded as due to anæmia of the brain induced by an over-action of the nerve filaments that supply the arterial and venous coats, thus adducing a contraction of the vessels. This effect is due to an inhibitory action that may have as its cause centric or eccentric irritation. At last the "spasm" of the vessels goes away and we get a corresponding nervous relaxation (congestion) which throws the patient into the customary sleep after each seizure, something similar to our opium stupors.

Leaving this most interesting part of the subject, I proceed to the consideration of its medication. Here, also, I am compelled to mourn a want of remedies acting directly upon this organism, commensurate with our want of a perfect knowledge of its pathology and physiology. There are a *few*, very few, drugs out of our vast array of weapons in our herbal or mineral *armamentarium* that have a special determination to this system. Stille, in his classification of "spinants, (Tetanica)" gives us but two drugs, the nux vomica and the faba sancti ignatii; with a mention, under other headings of three more, viz.: toxicodendron (stimulant), ergota (emmenagogue), sodii boras (irritant). A spinant—a remedy that acts upon the cerebro-spinal system—need not necessarily be a sympathetic stimulator; indeed, I can conceive of a spinant proving, by an inhibitory influence, a sympathetic paralyzer. Yet, some of the remedies, possibly all, just mentioned, are sympathetic irritants (stimulant); as for instance, nux vomica, and its alkaloid strychnia, faba ignatii sancti (and its alkaloid strychnia) and ergota have been abundantly proven as such—they leading to the contraction of the muscular fibres supplied from this sympathetic system. There are two other classes of remedies that exercise a similar influence, viz: belladonna and electricity. Heat (calor) also has (judging from its capillary action) a tonic influence, after the first stage of dilatation has passed, whereas cold (frigus) seems to have an opposite influence; probably the action of both may, more or less, be due to the interchanging phenomena of arrest, over the two systems, cerebro-spinal and sympathetic. Of all of the remedies electricity and nux vomica (or strychnia) stand the most prominent; the former also having a new power, that of exciting muscular contractibility even when all nerve life is dead.

The theory of the action of all of these remedies is about the same in each drug,and I need not single any one out for description. This action is that of a direct stimulant to the nerve cells,and, as a resultant of this stimulation, a checking of the abnormal action of the nerve cells of the other system, when administered in disease. Of course no one of the remedies acts singly and alone upon any one of the systems. It would be too much to try and single out these separate actions, as our friends the homœopaths have done, in these days of pathological and physiological ignorance. Yet, that the remedies I have mentioned have proven direct stimulators to *this one* system seems to me to be now an incontestable fact. Certainly ergota has been proven to produce sloughs (similar to our "bed-sores") from its holding the arteries in constant (tonic) contraction; and nux vomica you all know is a contractor of the dilated bloodvessels, also as is electricity. If we have a dilatation of these arterioles, etc., the vasa vasorum of the nerves, we certainly will have pain or paralysis, or both, resulting from this pressure; and if these remedies act, as is conceded, by blood contact, then it is just those points most dilated that will receive the lion's share of the remedy,and so the evil influence must be properly and efficiently combated by meeting the enemy upon his own ground and without evil consequences to the system at large. The success of treatment, in administering these remedies, including the bromides (which I consider more directly *spinal* sedatives) in cases of neuralgia and paralysis, with this view of the pathology of the malady, certainly sustains the views just advanced.

Memoir of Dr. Benjamin Rush.

READ BEFORE THE GRAND RAPIDS MEDICAL AND SURGICAL SOCIETY, JANUARY 3, 1877, BY G. K. JOHNSON, M. D.

Our meetings are devoted chiefly to practical subjects. Disease; its nature, its infinite varieties, and its most efficient correctives, are the topics which rightfully claim our attention. Each one in coming here is expected to bring some new fact, some fruit of experience, or some new suggestion as an offering to the common treasury of knowledge.

But whilst we thus occupy ourselves mainly with technical matters; with things, indeed, which may give us light and guidance in daily duty, we may nevertheless find both interest and profit in occasional digressions into less practical fields.

Exclusive devotion to technical subjects, and unremitting professional routine, may, indeed, narrow the understanding and enfeeble the faculties.

On the other hand, to turn aside now and then from the beaten paths, tends to relieve the tedium of professional thought, to freshen the spirits and to open up new subjects for reflection.

The history and biography of medicine furnish rich fields for such diversions. Therein are found inexhaustible stores of entertainment as well as instruction. Medical biography, in particular, is a domain replete with interest. The story of the life and labors of medical men who have reached great distinction and usefulness, and whose names mark epochs in the history of our art, cannot fail to amply reward those who study it. For it should not be forgotten that knowledge and progress in medicine are, for the most part, the fruits of the recorded labors of such men.

I propose, therefore, to bring before you this evening, in brief outline, the career of the distinguished Dr. Benjamin Rush.

There seems, indeed, to be a special fitness in calling up at this time the life and services of one who was prominently and honorably connected with the opening events, both professional and political, of the centenary period which has just closed.

Jno. Rush, the great-grandfather of Dr. Rush, was a captain of good repute in the armies of Cromwell. Discontented with the restoration of monarchy in England, he came to America in 1683, and settled on a farm thirteen miles from Philadelphia. On this ancestral homestead Benjamin Rush was born on the 24th of December, 1745. When six years of age his father died and his mother assumed the care of his education. When nine years of age he was placed in the private school of Rev. Dr. Finley, at Nottingham, Md. In this school, which was a model of its kind, the young pupil advanced rapidly in classical studies. At fourteen he entered Princeton College, and in the year 1761, when about seventeen years of age, he received the degree of Bachelor of Arts from that institution. While here he was marked for great studiousness and for aptitude in learning. He also displayed notable talents for both elocution and rhetoric. On this account most of his friends advised him to make law his profession. But his early and wise friend and tutor, Dr. Finley, turned his thoughts and ambition toward medicine. Accordingly he entered the office of Dr. John Redman, then the most noted physician in Philadelphia. Here he remained six years, prosecuting his studies with great diligence and success. Already he

University of Michigan

had acquired those scholarly tastes and methodical habits which marked his life. During these six years, besides his regular studies, he translated the Aphorisms of Hippocrates from their original Greek, and some of the works of Boerhaave and Sydenham from their original Latin. He also made careful notes of all important facts and cases within his knowledge. This practice of noting facts and observations he maintained through life, and he thought it of great service to him. He thereby accumulated a vast fund on which he never failed to draw in moments of need.

At the end of these six years of pupilage with Dr. Redman, Rush had mastered all the medical knowledge within reach in his native country, and he was forced to decide as to his further steps.

Here I trust I may be pardoned for a moment's digression in order that I may refer to the state of medical matters in this country at that time, namely, about the year 1767, while our fathers were yet the dutiful and loyal subjects of the British crown.

The colonies had then a population of less than 3,000,000, scattered in sparse settlements along the Atlantic border; but the adventurous pioneers were pushing their difficult way towards the interior. Philadelphia, then the most considerable town on the continent, had a population of about 24,000. But population was rapidly increasing; and settlements were multiplying with equal pace. These circumstances created a growing demand for medical men; but medical men were deficient both in numbers and in qualifications.

There was not a medical college in America, nor any facilities for a proper medical education. With a few exceptions, the practitioners were not graduates. Yet the practice of medicine was under the regulation of law. The colonial statutes undertook to guard the people against mere pretenders. Some colonies required examination and license by a medical board. In others, county courts granted license on some certificate of study or qualification. In others, again, the mere certificate of a practitioner that a young man had studied under him for a stated time was a sufficient warrant. After one or two years of office-reading, varied by the compounding of the crude drugs which constituted the Pharmacopœia of that period, the student would begin to "ride" with his preceptor, and would then soon become a full-fledged doctor. This "riding" with his preceptor was the only clinical training the student could then receive. Such were the kind and the extent of the professional education of most of the physicians of that day. Imperfect as it was, it is nevertheless true, that some of these men became skillful and distinguished practitioners. Industry and natural talents enabled them to surmount difficulties and the defects of education. Not a few, especially during the revolutionary era, reached eminence in professional and in public life, and left honorable records behind them.

There were, however, a few physicians in the country who had received a thorough scholastic and professional training. Of these, some were of foreign birth and education. Others were natives of the colonies who had gone to Europe for collegiate and professional education. These graduates in medicine were chiefly located in the more important towns, and were generally, by virtue of high character and attainments, the standard bearers of the profession in America.

Medical literature, too, was as scanty as the means of education. Not a medical book or journal had yet been published on this side of the Atlantic. In 1797 the first medical journal was published in America. Medical books were imported from Europe, chiefly from England. Medical libraries comprised but few books, frequently not more than two or three; but these were read and re-read until they were literally worn out with thumbing.

But I return to my subject. Young Rush, we have seen, was now at the end of his six years of pupilage with Dr. Redman, and so well had he improved his opportunities that he was considered fully qualified for practice. But to begin practice then was not his purpose. In him superior abilities were associated with high aims. Hence he had not thought of taking his course through life along the levels of mediocrity; but on the contrary, his eye was steadily fixed on the summit of his profession. He determined, therefore, to seek in Europe that fullness of training and knowledge which was not attainable in his own country. Accordingly he went to Edinburgh in 1766, and entered the Medical College there. That city was then the chief seat of medical education in Europe; and Cullen, then in the zenith of a world-wide fame, was the great star. After two years' attendance in that institution he took his medical degree. His Thesis, written and defended in Latin, was so noticeable that it received the unusual honor of publication. The winter after his graduation he spent in the hospitals of London, and the summer following in Paris, still gathering knowledge with eager avidity.

In the autumn of 1769 he returned to Philadelphia, and entered at once upon his long, busy and eventful career.

His professional preparation, we have seen, was deliberate and thorough. It comprised nine years of diligent and varied study. In those days a medical degree could only be secured after long and thorough pupilage. A diploma was, at least, evidence of careful technical training. It was not then the cheap and unmeaning script which, in too many instances, it has in later times become.

Soon after Rush returned to Philadelphia he was appointed to the chair of Chemistry in the Medical College of Philadelphia, and a few years later was transferred to the chair of Theory and Practice.

This was the first medical college in America, and when Rush became connected with it, it had been two or three years in existence. It had graduated a few students the year before this connection began. The founders of this school, and the colleagues of Rush, were Drs. Morgan, Shippen and Bond. They, with Rush, were the honored pioneers of medical education on this continent.

In 1791, this school was merged in the University of Pennsylvania; and it has ever since been known as the medical department of that University. It is therefore the oldest, as it has unquestionably been the most prosperous and influential professional school in the country.

When the schools were thus merged, Rush took the chair of the Institutes and Practice of Medicine and of Clinical Medicine; and this he retained until his death in 1813. He was thus a teacher of medicine from 1769 to 1813—an eventful period of forty-four years. During these years, the duties of his professorship were interrupted only by the vicissitudes of the Revolution, to which reference will presently be made. During all this time Philadelphia was the focus of medical culture and education in this country; and Rush, like Cullen, in Edinburgh, was the great attraction. So long as he lived, ambitious students gathered in that city from all quarters.

As a teacher, he was always exceedingly attractive as well as instructive. His influence and his opinions were paramount. But few teachers in any age or country have held such sway over pupils. His genius, his learning, his eloquence and his glowing enthusiasm, enchained all who came into his presence; and his admiring classes carried his teachings over the country and faithfully adhered to them as the highest prescripts of medicine.

The name of Rush is identified with many practical advances in medicine; but I have time only to refer to two or three.

He was the first to discover and to teach the true pathology of the dropsies. Dropsy had previously been regarded as a distinct, primary disease; but he pointed out that it is a secondary affection, a symptom or result of some visceral lesion. I need not, before this society, dwell on the clinical importance of this revelation. He also greatly improved our knowledge and treatment of hydrocephalus. His enlightened views of this affection were the results of careful clinical and autopsical studies.

To him is due the credit of emancipating the American medical mind from thralldom to European authority. Before his time, the physicians of this country had, for the most part, been servile followers of foreign practice. But Rush showed that American diseases have a character and type of their own, and that they require a therapeutics of their own. He not only gave the first impulse to independent medical thought, but by the freshness and vigor of his teaching and writings, he laid the secure foundations of that medical literature which has since so honored the American name.

One obvious fault mars the otherwise practical and luminous teachings of Rush. He constructed hypotheses or doctrines of disease, which he caressed with parental pride and defended with all the resources of his vast learning. All men of genius have their conceits; and, having genius, are apt to impose their conceits upon the world as true philosophy or wisdom.

Rush had his doctrine or speculation of the unity of disease; his doctrine of the nature and unity of fever; his doctrine that debility is the predisposing cause of all disease, and some others.

But I need not allude to them further. In regard to them, one and all, it only need be said that they are mere conceits or hypotheses; and that hypothesis is not science.

Buf after all, the age, rather than the man, is chargeable with his fault. At that time and previously, hypothesis or an ideal philosophy was the fashion in medicine: speculation was more employed than induction. It is only in later times that the inductive or demonstrative methods are laying the solid foundations of medical science.

But his speculations did not influence Rush at the bedside. There experience and reason were his guide.

As a practitioner, Rush was always in high credit. His practice was bold and energetic, yet discriminating. On the one hand, he scorned that weak dalliance which looks on with folded arms, while disease does its deadly work; on the other hand, he was conservative and gentle when he thought nature could be safely trusted. In disorders, which tend naturally towards a fatal issue, he thought it folly and crime to trust anything to nature, the inadequacy of the natural powers being shown by the fact that the disease, if left to itself, goes on towards death. In such cases, he thought it the duty of the physician to treat boldly and vigorously. In all acute diseases, especially in those of a sthenic type, he bled lavishly.

His practice would now be considered heroic and harsh; yet his skill was unquestioned and his success very great, if we may trust contemporary opinion.

In 1793 an epidemic of yellow fever broke out in Philadelphia, which, in extent and in fatality, is without a parallel in modern times. Six thousand people are said to have been sick with it at one and the same time; and within the short space of three months four thousand victims were swept away by it. All business was suspended and the streets were deserted; and historians tell us that the city was a gloomy solitude. Panic and despair seized upon the living; and all who could sought safety in flight and distance. I am sorry to add that most of the doctors joined the fugitives. Three or four only remained at their posts; and of these the most prominent was

Dr. Rush. With a devotion and heroism that would have crowned a soldier with laurels he gave himself to the succor of the scourged inhabitants. The labors he performed during these dreadful months seem now almost incredible. He literally gave himself no rest; he seemed to be everywhere and always on duty. At last his own powers weakened and broke; but he refused to leave the city, as his friends importuned him to do, saying he had resolved to remain at his post of duty, regardless of personal consequences. Fortunately, he soon rallied, and resumed his labors.

In the beginning of the epidemic the treatment employed was entirely ineffectual. The disease mocked the doctors. Rush first used the remedies which had been found useful in an epidemic which had prevailed in Philadelphia thirty-one years previously; but he found them useless in the present outbreak. He then tried in succession the various modes of treatment recommended by different authorities, but none were satisfactory. It almost seemed as if there was no remedy, and that the disease must be left to riot without restraint.

In this exigency he remembered a manuscript account of a similar epidemic which had prevailed in the colony of Virginia in 1747. This manuscript had been written by a Dr. Mitchell and given by him to Benjamin Franklin, who in turn had given it to Dr. Rush. In this Dr. Rush found facts and observations which suggested new views of practice. One hint thus obtained was, that apparent debility or depression does not contra-indicate the use of evacuants; and that the most extreme apparent debility was often at once relieved by an active purge or by venesection. Rush was prompt to act on these hints, and he soon found satisfaction in the new and vigorous mode of treatment. From that time on he bled and purged freely, and in his hands the practice was eminently successful. Soon his praises were on every tongue and his fame spread far and wide.

But during all the pressure and hurry of this epidemic, Rush was studying it with a keen, analytical scrutiny. No fact or phenomenon escaped him. Everything, indeed, which could throw light on the origin and nature of the disease was carefully noted. Thus prepared with facts and data, he soon after published a monograph on the disease. In this he maintained that the malady had a local or domestic origin; that it started, *ab initio*, in the city itself, from bad sanitary conditions, concurring with favoring states of the atmosphere. He rejected altogether the theory of a foreign origin and importation, which was then current. This view gave great offense to some of the merchants and property owners. They fancied they saw in it danger to their pecuniary interests. If it were understood that the dread disease could originate in the city from local causes, they feared that business and commerce would seek other marts.

These mercenary calculations combined with certain professional jealousies to assail Dr. Rush; and he became the object of a most bitter and unscrupulous warfare. Falsehood and scurrility were freely used against him. His views were mis-stated and his practice satirized. His doctrine of the domestic origin of yellow fever was fiercely assailed. The people and the press took sides in these hot contentions, and for many months the agitation was quite equal to that of a presidential election,

But Rush, who, during all this turmoil, had shown not the slightest irritation, at last achieved a complete triumph. In Philadelphia and throughout the country he not only took rank as the leading physician and the highest medical authority, but he was regarded as a great public benefactor.

Here it should be remarked that his recommendations with regard to the prevention of yellow fever gave the first impulse to the sanitary protection of cities. They caused Philadelphia to be supplied with water from the Schuylkill for the purpose of washing and cleaning the streets. They also caused Boston to be supplied with a system of underground sewerage—the first in America.

His labors and writings and recommendations at this time and subsequently, concerning matters of public health, helped to give him a position of authority and influence which no other physician in the country has ever attained. Kings and emperors sent him tokens of appreciation; learned societies in Europe sent him testimonials and enrolled him in honorary memberships; and the most famous European physicians wrote in praise of him.

But were we to pause here we should leave out of view much of the lustre which attaches to the name of Rush. Pre-eminent as a physician and medical authority, he was no less conspicuous as patriot and statesman. It was his good fortune to live in the heroic age of his country, and his rare merit enabled him to take a leading part in the grand events of that age. I need not recount the story of the Revolution. I can only say that the long yearnings and struggles of the Anglo-Saxon race for liberty and self-rule were about to be realized in the New World. But the most intense intellectual activity and political commotion preceded and accompanied the event. From the beginning of this agitation Rush sided with the colonies; and throughout he upheld their cause unfalteringly, and with all the warmth and vigor of his nature. He was amongst the first to declare for separation from the mother country. His prophetic vision already discerned the coming glories of the nation yet unborn. At the beginning of agitation in 1774, Rush was thirty-one years old. He had been five years in practice, and he was popular, influential and ardent. He had a happy talent for popular oratory, and this he employed in behalf of the cause of liberty. He wielded an effective pen, and this he dedicated to the same service. He also prompted others to write in the same cause. It was he who induced the celebrated Thomas Paine to write and publish his pamphlet entitled "Common Sense," which, all historians agree, did more for the cause of liberty and independence than any other single publication.

I cannot, however, go into the details of the public services of Rush during those memorable years; but I come at once to the critical days of July, 1776.

After heated and prolonged debates, the Declaration of Independence was adopted in the Continental Congress on the 4th of July of that year. But a majority of the delegates from Pennsylvania remonstrated against it and retired from the Congress. Thus Pennsylvania was on record as against the declaration. But the party of independence, headed by Rush, now put forth a supreme effort, and the colony was brought triumphantly into line with the other colonies. A new convention of the people was called, and new delegates were chosen to take the place of those who had opposed the declaration. Rush was one of these new delegates, and was chosen expressly to sign and defend that great chart of liberty. On the 19th of July—fifteen days after the date of the declaration—he entered the Congress and affixed his signature to that instrument; and *thus linked his name forever with the most momentous political event in the annals of the world.*

It is to me a proud satisfaction to advert here to the fact that five of the signers and upholders of the Declaration of Independence were men of my profession. They were, besides Rush, Joseph Bartlett and Matthew Thornton, of New Hampshire; Oliver Wolcott, of Connecticut, and Lyman Hall, of Georgia.

Did time permit, it would also give me pleasure to extend this reference to medical men who in that trying era rendered important and distinguished services to their country, both in cabinet and in the field.

After the close of his service in Congress, Rush was in various ways untiring in his efforts to uphold the American cause. In 1777 he became Physician General, and afterward Surgeon General, of the Middle Military Department. In the latter capacity he was present at the battles of Princeton and Brandywine. But peace and independence came at last. Rush then and thenceforth devoted himself with great zeal to his practice, to the duties of his professorship, which had been interrupted by the war, and to medical authorship. Yet he continued to take a broad and enlightened interest in public affairs and in the condition of the people. New institutions were to be founded and new governments organized. At first these were necessarily imperfect, and did not yield the rich benefactions which sanguine patriots had anticipated. Rush saw these defects with the clear eye of a statesman, and labored intelligently to remedy them. He advocated certain changes in the constitution of Pennsylvania. He advocated the adoption of the present Federal Constitution to take the place of the old Articles of Confederation. He was so earnestly in favor of the present constitution that he consented to serve as a member of the State Convention which was called to decide on its ratification or rejection.

He secured a revision of the criminal code of Pennsylvania in the interest of humanity and justice. Before that time capital punishment was inflicted for many crimes besides murder. He secured the abolition of this barbarous penalty in all cases except murder in the first degree.

The pillory, the chain-gang and the whipping-post were seen in the streets of Philadelphia. His earnest remonstrances caused them to disappear.

About the year 1789 the use of ardent spirits had become so prevalent as to threaten the most serious consequences. In this emergency Rush wrote and published a pamphlet, which was republished throughout the country, in which he demonstrated with remarkable force and clearness the physical and civil evils of the use of spirituous liquors. Hildreth, the historian, makes special mention of this pamphlet, and attributes to it a wide and salutary influence. Thus Dr. Rush must be considered the original (as well as the most influential) advocate of temperance in America.

He was an early and decided advocate of popular enlightenment, and of free common schools. He always insisted that, as our institutions rest on popular suffrage and our laws reflect the popular will, it is absurd to expect a wise policy or a good administration if the suffragists were ignorant and degraded.

For more than forty years Rush was an industrious and versatile writer. Notwithstanding the wearisome labors of his practice and of his professorship, he found time to make many important contributions to the Republic of Letters. As an author his style was fresh, original and perspicuous. His works were comprised in seven or eight volumes. Most of them are devoted to medical subjects, but one or two to miscellaneous topics.

But the life of my subject presents so much material, that it is impossible, in a paper like this, to even touch upon the more salient parts of it, and I must go no further.

Dr. Rush was always an enthusiastic lover and cultivator of his profession. It is not too much to say that he did more by his high character, his learning, his varied accomplishments and his noble example to give tone and elevation to that profession and to secure for it popular consideration, than any other physician America has yet produced. To his memory the profession in America owe the richest tributes of honor and gratitude.

The Metric System.

BY W. H. LATHROP, M. D., RESIDENT PHYSICIAN, STATE ALMS HOUSE, TEWKSBURY, MASS.

As this very convenient system of weights and measures is in use in the institution with which I am connected, I take the liberty of saying for it a word of commendation, and of making a few suggestions which may be of value to others who contemplate adopting it.

We have used it exclusively now for about three months, and see daily evidence of its superior value.

The tools required are few and not expensive.

We purchased a ten cubic centimetre graduate and another of one hundred cubic centimetres, though the last was not really necessary. From these, the old graduates were marked with a diamond, so that the minim graduate could be used for 10 cubic centimetres, the 4 oz. graduate for 125 cubic centimetres, and the half pint for a litre.

In marking for small quantities mercury will be found more available than water, on account of the difference in capillary attraction. The mercury gives a more definite line. The marks are first made with a finely pointed pencil on paper, pasted perpendicularly on the graduate, and then other lines adjoining these can be easily made with a glazier's diamond. The graduates thus marked will show, at a glance, the relations between the two systems, and will be very convenient in public dispensaries where both systems are used.

Of weights, we obtained two sets. One, of best quality and very accurate, for small scales, is made of platinum and brass, ranging from .01 gram (one centigram, grain 1/6) to 20 grams. The other is made iron, ranging from 10 grams to 1,000 grams (one kilogram, about 2 pounds.)

These weights prove to be just what is needed. They were obtained from the Metric Bureau in Boston for five dollars. I mention the price because many are deterred from getting the weights by the high price usually charged for them.

One more acquisition and the armament is complete. This is a table showing the relations between the old and new systems, of a convenient size for ready reference. For this purpose I know of nothing better than the annexed table which has been sent to me by T. Metcalf & Co., and which I perceive has been favorably noticed by the *Boston Medical and Surgical Journal:*

A TABLE FOR REDUCING TROY WEIGHTS TO GRAMMES.

Troy Weights.	Gramme Weights.	Troy Weights.	Gramme Weights.
Grain 1-10	.006	Grains 80	5.18
" ⅛	.008	" 90	5.83
" ⅙	.011	" 96	6.22
" ¼	.016	" 100	6.48
" ⅓	.022	" 120	7.75
" ½	.032	" 150	9.72
" 1	.065	" 160	10.37
" 2	.13	" 180	11.66
" 3	.19	" 200	12.96
" 4	.26	" 240	15.55
" 5	.32	Drachms 6	23.3
" 6	.39	" 8	31.1
" 8	.52	" 10	38.9
" 10	.65	" 2	46.6
" 12	.78	" 14	54.4
" 15	.97	" 16	62.2
" 16	1.04	" 20	77.7
" 18	1.17	" 24	93.
" 20	1.29	Ounces 4	124.
" 24	1.55	" 5	155.
" 30	1.94	" 6	186.
" 36	2.33	" 7	217.
" 40	2.59	" 8	248.
" 50	3.24	" 9	279.
" 60	3.89	" 10	311.

TABLE FOR REDUCING FLUID MEASURE TO CUBIC CENTIMETRES.

Fluid Measure.	Cubic Centimetres.
Fluid Drachm ½	1.84
" 1	3.69
" 1½	5.53
" 2	7.38
" 2½	9.22
" 3	11.07
" 4	14.76
" 5	18.4
" 6	22.1
" 7	25.8
Fluid Ounce 1	29.5
" 1½	44.3
" 2	59.
" 3	89.
" 4	118.
" 6	177.
" 8	236.
" 10	295.
" 12	354.
" 16	472.
" 20	591.
" 24	709.
" 30	886.
" 32	944.

It is not desirable, in writing decimal prescriptions, to first write the quantities in the old way and then translate them. It will be found easier, both for the physician and the apothecary, to have the prescriptions adapted originally to the metric values. The following will illustrate:

Solution containing 4 fl. oz.—32 doses of 1 drachm each.

		Translated:
℞ Morphiæ sulphatis	grs. v	gm. .32
Chloral	ʒiv	gm. 15.55
Syrupi	fl. ℥j	cc. 29.5
Aquæ	fl. ℥iij	cc. 89.

M.
S. Take a teaspoonful as directed.

Instead of sending to the apothecary the translated prescription, as above, it will be better to write one *de novo*, as follows:

Solution containing 100 c. c.—20 doses of 5 c. c. each.

℞ Morphiæ sulphatis	gm. .2
Chloral	gm. 10.
Syrupi	cc. 25.
Aquæ	cc. 75.

M.
S. Take a teaspoonful as directed.

It will be perceived that in both of these prescriptions the quantities of morphia and chloral contained in each dose are substantially the same.

In administering medicines we use a teaspoon containing 5 cc. and a tablespoon containing 20 cc. One fluid drachm contains 3.69 cc., but experiment will easily show that this cannot be depended upon as the size of a teaspoon; in fact it is very frequently the case that one of these utensils contains 6 cc. If then we direct the patient to take a "teaspoonful," with the expectation that he is to get a drachm only of the solution prescribed, we are often deceived, since the patient's teaspoon may contain nearly twice that quantity. I think, therefore, that in allowing 5 cc. as the capacity of the teaspoon, no injustice is done to that time-honored vehicle. Of course, where practicable, the graduated medicine glass should be used instead of spoons.

With regard to the denominations, we have found it most convenient to use only the gram and the cubic centimetre, never writing centigram, decigram, etc, but relying upon the decimal point to express these values. This, I believe, is the usual custom with those who write decimal prescriptions.

Some have advised the omission of the abbreviation, leaving it to be understood that "gm" is meant in the case of solids and "cc" in the case of liquids, but it seems to me that the abbreviation should be always expressed.

Persons, who wish to become fully informed as to the value and scope of this system, will find it profitable to correspond with the Metric Bureau of Boston (No. 1 Tremont Place), by whom they will be furnished with information or appliances. All decimal weights and measures are now furnished by this Bureau at *cost*, but in a short time a small profit will be charged. They supply also a very comprehensive chart, one metre square, which fully illustrates the relations between the various weights and measures.

We who have learned the doses of medicines according to the old tables, will have some difficulty in transferring that knowledge to the metric system, but that is about the only obstacle to be encountered, and one which a very little persistence will overcome. Students, however, who are now for the first time learning the doses of medicine, will have much less difficulty in remembering the new than the old, and they will thus save themselves the trouble of afterwards making the change. It seems to me that the time is not by any means far distant when the United States will follow the example already set by nearly every civilized nation, and practically adopt this Decimal System.

Reports of Societies.

Detroit Academy of Medicine.

DETROIT, December 12, 1876.

The Society met at the office of Dr. Inglis: the Vice President, Dr. Tiffany, in the chair.

The reading of the minutes of the previous meeting was dispensed with.

The gentlemen who were to have read papers—one advocating the unity, the other, the duality of diphtheria and croup, at this meeting, were unavoidably absent.

Dr. Connor said he would like to have the expression of the meeting on this question, and introduced the subject as follows: He had been much interested in looking over the mortality reports of the city of Philadelphia, in regard to the number of deaths from croup and diphtheria. He found that they were nearly equal: males were affected in a slightly increased ratio in each disease. In both diseases, there was an increased number of cases from the 1st to the 5th years of age disappearing after this age in about equal proportions for each disease. He had enquired into the original signification of the terms croup and diphtheria. Dr. Patrick Blair, in a letter to Dr. Meed, in 1713, calls pertussis "croops." The root from which it is derived signifies "cry, or hoarseness." As first employed, it meant stridulous breathing; since then. it has been employed to designate laryngitis—spasm of larynx—and diphtheritic laryngitis. Apparently the stridulous breathing, a common symptom, being the basis of nomenclature.

Diphtheritis, means inflammation of skin, applied first by Bretonneau, to inflammation of skin or mucous membrane, attended with formation of false membrane. "It is a specific contagious, asthenic general disease, characterized by exudation in certain situations of a peculiar caco-plastic lymph which, together with epithelial cells generally forms a thick, tough and stratified pellicle. This false membrane is not produced by inflammation; is not an ordinary lymph; it is a stroma made up of mucous and epithelial cells, arranged in super imposed layers; even fibrillation is observed in the texture of the layers, but the layers do not consist of albumen or fibrin." (J. R. Cormack's comparison of diphtheritic laryngitis with the true croup.)

French writers use the term diphtheritis, to cover several affections, true croup included. For some affections of the larynx, they use the term croup, as laryngeal spasm. When diphtheria involves the larynx, they call it croup. On the other hand, English authors describe diphtheritic laryngitis, and true croup, as distinct diseases. The Dr. said that he had taken the pains to consult several of the best English authors, in order to compare the diseases which they described under the titles of "Diphtheritic Laryngitis and True Croup," and found that the descriptions given were so nearly alike, that it seemed as if they were describing one disease under two names.

The Dr. gave the following comparative synopsis of diphtheritic laryngitis and true croup, as taken from the authors referred to:

DIPH. LARYNGITIS.	TRUE CROUP.
"Incubation from 2 to 4 days; is usually ushered in by general or constitutional symptoms, followed by local symptoms, referable to the throat or to other parts."	"Idiopathic croup is frequently preceded by some premonitory symptoms for a day or two, such as a slight, harsh cough and hoarseness, sore throat; some pyrexia and constitutional disturbance."
ANATOMICAL CHARACTERS.	ANATOMICAL CHARACTERS.
Redness at first; then swelling and increased secretions of viscid mucus, then diphtheritic deposit, commencing at any one point, or several points; extending and coalescing so as to form extensive patches, or even to cover the entire surface. The patches,are variable in color and consistence. On removing them, a raw bleeding surface is left, which is speedily covered by a fresh deposit.	Redness at first; then swelling, and increased viscid secretion; thin croupous deposit. This may be limited to a small portion of the surface or to separate patches, or it may cover the whole of the larynx and trachea. Its thickness varies from a mere film to two or three lines or more. Its consistence is variable, and fresh deposit not uncommonly forms after the membrane is separated, and this may be repeated several times.
Microscopically the material consists chiefly of epithelial and glandular cells, with molecular granules of fat and protein; sometimes fibre and disintegrated tissues are present, vegetable growths are sometimes present, lymphatic glands in the neighborhood are enlarged.	Under the miscroscope, it is seen to consist of an amorphous or finely fibrillated substance. The lymphatic glands in the neighborhood are enlarged.

SYMPTOMS OF LARYNGEAL DIPHTHERITIS.	SYMPTOMS OF LARYNGEAL CROUP.
Exudation begins in larynx; laryngeal symptoms prominent from first. High pyrexia; feeling of great illness; weakness; pulse very feeble.	Voice at first harsh; finally whispering or lost. Paroxysm of spasmodic cough, interrupted by crowing inspiration. Respiration is greatly impeded. High pyrexia at first; subsequently abates.
Duration, 2 to 14 days.	Duration, 1 to 14 days.
DIPHTHERITIC LARYNGITIS.	TRUE CROUP.
Cause of death—Apnœa, Asthenia, Septicæmia, Uræmia, Secondary nervous disturbance.	Cause of death—Apnœa or Asthenia.
Prognosis: always more grave in children than in adults.	Prognosis: Croup is a most fatal disease; prognosis is worse in young infants.
TREATMENT.—Air of room should be kept at 65°, and moist with steam. Children should have a tent made over their cribs, and steam conducted beneath it. Advantage of emetics is questionable. Nutritive diet, ice; keep bowels open. Local applications, gargles, &c.; tracheotomy.	TREATMENT.—Air of room kept at 65°, and moist with steam. Children should have a tent made over their crib and steam conducted beneath it. Emetics sometimes useful, cold compresses, local applications, gargles, nutritious diet, tracheotomy

Diphtheritic laryngitis and true croup are not to be separated. Both are highly contagious and infectious diseases. They are interchangeable; croup may spread from diphtheria and vice versa.

If asked if there was any difference in these diseases, should say there was not. Croup is a symptom; diphtheria is always a disease. It will be said that there are a variety of types of diphtheria. The same may be said of typhoid fever. Typhus and typhoid were considered to be identical until separated by Louis. There is a laryngitis which is a grave disease, but use the term laryngitis and leave it there; no use of adding croup.

Dr. Cleland asked Dr. Connor if the so-called cases of infantile croup would not produce diphtheria if innoculated elsewhere.

Dr. C. answered certainly.

Dr. Noyes said he had not given the subject much attention; could only speak from his own experience and observation; had always considered them distinct diseases. Both are characterized by an exudation at the upper portion of the air passages. In true croup the pseudo-membrane generally limits itself to the epithelial layer; in diphtheria it goes deeper, invades the whole substance of the mucous membranes, and is often followed by mortification of it and contiguous tissues. When the disease invades the air passage lower down, and in the larynx, the exudation is generally more superficial; and here it is that they seem pathologically to resemble each other. But the systemic infection and constitutional disturbance and its contagious and infectious character are the strong points which serve to distinguish diphtheria from true croup.

Dr. Jenks said that he had not given the subject any special attention, and that Dr. Connor's remarks corresponded entirely with his own views. He had seen a good many cases of true croup, but had never seen a case but what he considered it analagous to diphtheria. He said the old writers mentioned two kinds of croup, true and false, and up to the time he was a student there was no other division. The Dr. said that it was not until after the works of Bretonneau and other French authors came out that he began to consider the pathology of croup and diphtheria for himself, and since that time, had held that they were identical as he could not find any essential difference in the progress, treatment or mode of death in these diseases. The membranes are the same microscopically and macrosopically. In relation to the point of difference raised by Dr. Noyes, it does not militated against the theory of their unity.

Dr. Cleland thought a point that argued against the unity of the diseases was, that true croup never spread through a family from a given case. He said that the croupous membrane never extended from the larynx to the fauces, while he had often seen diphtheria proceed from the fauces to diphtheria of the larynx. In acute membranous croup the invasion stage is shorter and sharper, the temperature is higher and membrane does not proceed from the fauces, but attacks the latter at once. The patient dies of apnœa simply. In diphtheria the invasion stage is not so marked; the temperature is lower, the membrane often extends to the larynx, etc. Patients die from extreme exhaustion. Diphtheria is often followed by paralysis, and is a highly infective and contagious disease. Croup is not. He related several instances where diphtheria had attacked a member of a family, and from whom it spread to all the members, often being very severe in its consequences; but he could not recollect a single instance where he had observed the same thing in true croup.

Dr. Noyes—If the diseases were identical we should look for similarity in results; in diphtheria, as sequelæ we have palsy of the muscular apparatus of the throat, of the extremities and of the accommodation in vision, with squints; sudden death from syncope, palsy of the heart; had seen a patient suddenly expire in this way after weeks of convalescence; had never seen these things occur in croup.

Dr. Connor,—We would have the same results but the patients do not live long enough for them to be produced. We see in croup plenty of cases where tracheotomy has been performed, and air passages opened, the same general results following that we get in diphtheria, the patient dying from exhaustion, etc. We have a sthenic form of diphtheria, like the croup Dr. Cleland mentioned. The most of the cases are asthenic; almost every disease has a sthenic and an asthenic form. The paralytic symptoms are sequelæ, and are due to the effects of the poison on the central ganglia or medulla.

Dr. Noyes,—That is not known. Some claim that it is due to a paralysis of the peripheral nervous apparatus.

Dr. Connor,—But when we take into consideration that patients die who have plenty of room for the entrance of air, it would seem to militate against peripheral nervous paralysis.

Dr. Noyes,—It does seem to me we have abundance of evidence to prove that the local symptoms are entirely different in croup. It does not spread so rapidly. In diphtheria it spreads rapidly; he had seen the membrane extend from the pharynx, and cover the whole Schneiderian membrane. And in one case which came under his observation he believed it invaded the prima via.

Dr. Chapaton said that Bouchut in Paris called it diphtheria so long as the membrane confined itself to the fauces and contiguous parts; but if it invaded the larynx he then called it croup, and the admission cards would be changed, so as to read croup instead of diphtheria.

PREVAILING DISEASES.

Dr. Inglis reported Chicken-pox as prevailing in his practice. He had had several cases of diphtheria. He recommended as a local application, a powder composed of equal parts of bicarb. of soda, salicylic acid and sulphur, applied by means of an insufflator.

MISCELLANEOUS.

Dr. Jenks said that there had been an error made in Dr. J. H. Beech's diploma,—the doctor's name was incorrectly spelled, and the date of the diploma was not right—and moved that the treasurer be authorized to correct diplomas as wished by those to whom presented.

No further business, the society adjourned.

J. D. MUNSON, M. D.,
Secretary.

DETROIT, December 26, 1876.

The society met at the usual place.

In the absence of both the president and vice president, Dr. Noyes was elected president, *pro tem.*

PREVAILING DISEASES.

Dr. Bradley reported a few cases of scarlet fever, all the cases being of a mild type. .

Dr. Inglis inquired of Dr. B. if he used any prophylactic measures to prevent its spread in a family.

Dr. B. said that he used sweet spirit of nitre simply.

Dr. Cleland mentioned an extremely severe case of scarlet fever, that was at that time under his care. The patient, a child, had been ill five days, and suffered all that time with maniacal delirium. No sedative had any effect in controlling the patient.

Dr. C. also had seen quite a number of mild cases of diphtheria located between Antoine and Hastings streets. In one instance a whole family, the mother and father included, were attacked with the disease at intervals of a few days. In the house adjoining there was one isolated case. The Dr. could discover no local cause.

The Dr. also related a case that he had been called to see in which the patient had taken an ounce and a half of oil of tansy in order to bring on a miscarriage; she believing herself to be pregnant. The first symptom noticed was convulsion, and at the time the Dr. first saw her, she had every evidence of acute gastritis with a tendency to peritonitis. Temperature 101½°, pulse 135. He gave a very grave prognosis. No miscarriage was produced.

Dr. Noyes said he would like to ask the gentlemen present if they have had any experience with the oil of tansy, and if there was any virtue in it for the production of abortion. He remembered a case in which the patient took a large quantity of the oil, and came near dying in consequence, but it failed to bring on miscarriage.

Dr. Cleland remarked that he had known of several cases where it had been taken to produce abortion, but it was always inefficient. He said he had been told by druggists that extract of cotton wood was used.

Dr. Carrier mentioned a case of puerperal fever, and asked if there were any other cases in the city. He did not know how she became infected.

Dr. Yemans said that within a very short space of time he had met with two cases of Colles' fracture, and a compound fracture of forearm. He also reported small-pox as prevailing in his practice.

Dr. Chapaton mentioned a case of abortion that had been produced with an umbrella wire. The wire pierced the womb through the lateral vaginal cul-de-sac, and was followed by quite extensive hæmorrhage, and a small hæmatoma.

Dr. Carrier related the case of a woman who aborted at the 3d month, a fœtus that did not appear more than six weeks old. The woman still continues to enlarge. Dr. C. raised the following query: "Was the woman pregnant with twins, and was not one expelled?"

Dr Connor related the results of a post mortem examination that he had made the day before. There had been doubt in the case as to diagnosis, and many physicians had seen the patient. The symptoms were chills, followed by fever and sweating; resembling intermittent fever very closely, and resisting every method of treatment. During the fall vomiting occurred once or twice, and a small quantity of blood was thrown off with the matters vomited. Two or three months before death a hard lump in abdomen was discoverable, just below costal cartilages, and to the right of the median line. There was no diarrhœa and no derangement of any of the excretory organs. The patient, aged 78 years, gradually sank and died.

The examination was made 12 hours after death; rigor mortis well marked; abdomen and contents examined. Abdominal incision made in the usual manner; the edge of the left lobe of the liver was pale and attached to the stomach for an inch and a half near the pyloric portion. The right lobe of liver contained nodules of whitish appearance, on section these were found solid. The rest of the liver had undergone extensive fatty degeneration. The right lobe was attached very firmly posteriorly by a hard nodular substance that surrounded the cœlic axis, solar plexus and head of pancreas, the small portion of the latter not being involved. The pancreas was, however, very easily separated from the mass. Nodules extended down the back bone as far as the pelvis. On opening into the stomach it was found much dilated towards the left; in the portion between the pyloric and cardiac orifice, there was a large ulcer the edges of which were attached to the liver; the floor being made up of the liver and the nodular substance. The kidneys were nodular, and contained several large cysts. The coats of the aorta were filled with calcareous deposits. The Dr. said that severe manipulation of the stomach ante-mortem might have separated its attachments to the liver, resulting in leaving a large opening directly from the stomach into the peritoneal cavity.

Dr. Connor moved that the secretary be authorized to procure a suitable book, and that the secretary and treasurer be elected a committee to copy therein the Constitution and By-Laws with their amendments, and procure the signatures of the original signers as far as practicable thereto. Carried.

No further business, the society adjourned.

J. D. MUNSON, M. D.,
Secretary.

Joint Meeting of the Wayne, Washtenaw and Oakland County Medical Societies.

HOLLY, December 7, 1876.

The Union Medical Society of Wayne, Washtenaw and Oakland counties, met at Holly, at 10:30 A. M., Vice President Dr. Johnston, in the chair.

Dr. Johnston presented a patient, whose eye had been injured a few weeks since, by a spicula of iron, flying from a hammer, entering the eye at the lower and outer angle of the cornea.

The President appointed Drs. Hagadorn, Swift and Wade, as committee to examine the patient. They found that adhesions had formed in the iris; and that it was impossible to dilate the pupil. They found, also, that there was opacity of the crystalline lens, and were of the opinion that the eye was irreparably injured Dr. Watson, recommended iridectomy.

Dr. Riker reported a case of ovarian tumor, which he aided Dr. Wixom in removing. The pedicle was cut too short, the ligature slipped and hæmorrhage ensued. A second ligature of cat gut was applied, which became softened and also slipped off, on third day. Patient died from hæmorrhage.

The Society next proceeded to the election of officers for the ensuing year, as follows:

President—Dr. R. Johnston.

Vice Presidents—1st Dr. A. D. Hagadorn, 2nd Dr. E. Watson.

Secretary—Dr. E. A. Chapman.

Treasurer—Dr. G. W. Lowery.

Censors—Drs. A. W. Riker, N. C. Hall and J. W. Fletcher.

Dr. Riker introduced a patient for examination. The President appointed Drs. Hall, Lowery and Watson, as a committee for that purpose. They find it to be a case of hydrocele of spermatic cord of six years' standing. This case brought out a general discussion as to treatment. Some would let it alone; others would inject tincture of iodine; others would use the seton. Dr. Swift would use some astringent and stimulating liniment with suspensory bandage. The discussion of the subject of the injection of iodine was varied and interesting.

AFTERNOON SESSION.

The Society met according to adjournment.

Dr. Chapman read a paper on "Pathology and treatment on Pneumonia," and the society entered upon a general discussion of the subject. Dr. Wade relies much on the use of anodynes; not merely to relieve pain, but thinks by relieving the irritability they will lessen the inflammation.

After a somewhat lengthy discussion in regard to the position the State Medical Society has taken in respect to the medical department of the University of Michigan, the society adopted the following resolution:

Resolved, That the Union Medical Society of Wayne, Washtenaw and Oakland counties, advise the State Society, to only so amend its constitution in regard to the admission of new members as not to exclude graduates of any Medical College, whose entire faculty is eligible to membership.

Moved and adopted by the Society, that the Secretary send to the Secretary of the Michigan State Society, a copy of the above resolution. The Society then adopted the following:

Whereas, It has seemed good to the Almighty, to deprive our worthy and esteemed fellow-member Dr. Jas. M. Hoyt, of his sight, that special sense which has been most dear to him: and

Whereas, The intimate relation, long held by him, to the members of the Union Medical Society and profession at large, render it proper that we should place upon record our appreciation of his services as a co-laborer and an estimable citizen, therefore,

Resolved, That we tender to him, in his affliction, our earnest sympathy and consider him a member of this Society, with a remission of his fees.

On motion, the Society adjourned.

E. A. CHAPMAN, M. D.,
Secretary.

Abstracts From Exchanges.

Practice of Medicine and Therapeutics.

PUS CORPUSCLES—NEW THEORY RESPECTING THEIR FORMATION.—Dr. Chas. Heitzmann (*Medical Record*, May 13, 1876,) says that the matter commonly called protoplasm is built up of a true net work, formed by masses of living matter united to each other by delicate thread-like connections, and suspended, as it were, in a material not endowed with properties of life. The nucleus is nothing but a compact mass of living matter, and its behavior, when treated with chloride of gold, is the same as that of other elements of living matter. The matter between the cells is not lifeless, but is a substance amply provided with living elements. An animal, according to this theory, represents a mass of living matter, the denser accumulations of which, formerly called cells, were connected by more delicate, thread-like processes of the same living matter; and in the meshes of this net work is suspended a fluid in which various corpuscles, such as blood corpuscles and pigment granules might float. The so-called cells are made up of granules and threads of living matter, which unite the nucleolus with the nucleus, the nucleus with the periphery, and the threads permeate the substance between the so-called cells, thus effecting a union, one with the other, throughout the entire body. The so-called cell is but a fractional part of the innumerable whole.

To the development of inflammation, blood vessels, either in the part or its immediate neighborhood, are indispensable. The first step in the inflammatory process was a softening or liquefaction of the glue giving basis substance, and a retrocession to the embryonic appearance of the protoplasm, in which the protoplasmic elements were again rendered visible. At the second step in the inflammatory process, the living granules, very often the nucleus, increased in size; living matter to a certain amount was produced; every such corpuscle, a living granule increased in size, was capable of producing new elements; and all these elements were united with each other by means of the delicate threads to which reference has been made. Now, if those thread-like connections between the enlarged granules of living matter became torn asunder, as they might from the tension produced by a large amount of exudation, if by any means the single elements were separated, they at once were pus corpuscles. Pus, therefore, is metamorphosed tissue: pus corpuscles are elements of a former tissue, separated from each other. Pus is not tissue, nor is it capable of producing tissue. A pus corpuscle is a newly formed protoplasmic lump.

DISEASE GERMS—PRESENT CONDITIONS OF THE EVIDENCE CONCERNING THEM.—The Public Health section of the International medical congress after hearing and discussing a paper on the above topic by Dr. Thomas E. Satterthwaite adopted the following conclusions. *(Med. News and Library, Oct. 1876)*

1. So far as inquiry has been made as to the results of the active principles in infective diseases it is probable that in a certain number the matter is molecular in form and in some instances in no sense a soluble substance.

2. In regard to the causes of septicæmia, pyæmia, puerperal fever, erysipelas and hospital gangrene and in cholera, small pox, the carbuncular diseases of men and animals of typhoid and relapsing fevers, and diphtheria, there is not satisfactory proof that they are necessarily connected with minute vegetable organisms.

3. The real nature of these causes is still uncertain.

BACTERIA—THEIR NATURE AND RELATIONS TO DISEASE.—Dr. T. E. Satterthwaite *(Med. Record Dec. 1875)* in some interesting discussion of this, concludes.

1. Bacteria are certain vegetable organisms which prob-

ably belong to the algæ; they are found abundantly in nature but chiefly where there is moisture.

2. They exist in the body in health covering the mucous membranes from the mouth to the arms, and sometimes to penetrate a certain distance into the system without causing symptoms of disease.

3. They also exist in putrifying fluids and in various diseased processes, occuring in hot and cold abscesses, in the blebs of erysipelas and in simple blisters.

4. It is doubtful whether the virulent principle of infective diseases is albuminous.

5. This principle does not reside in the perfectly clear fluid that passes through porous clay. In putrid infectious fluids this appears to be certain. The poison is rendered less virulent by repeated filtrations through common filter paper.

6. The virulent principle may be boiled for hours, filtered numbers of times in the ordinary way, boiled with alcohol, and again filtered and dried, and yet the watery extract of such a dry residue will produce septic symptoms. It is therefore soluble or at least suspended in water.

7. The liquid which is thus poisonous may be clear to the eye but contains granules under the microscope.

8. These granules have not produced bacteria in a number of instances when they were placed in a suitable condition to do so.

9. We cannot therefore feel that satisfactory evidence has been brought to show that in any of the diseases or processes enumerated minute organisms are the sole and efficient causes of disease.

FEVER PATHOLOGY.—Dr. H. F. A. Goodridge *(Brit. Med. Jour.*, July 29, 1876*)*, in a very interesting sketch of fever pathology, sums up our positive knowledge as follows:

The characteristic elevation of temperature of the body in fever is mainly due to increased production of heat. Besides the increased production of heat there is a disorder of nutrition, an abnormal disintegration of the tissues of the body, and particularly of the muscular tissue, evinced, on the one hand, by increased excretion of urea and of potash salts, of carbonic acid, and perhaps also by water; and on the other by progressive loss of body weight. The increased production of heat occurring at a time when a principal source of normal heat production, viz., the food ingested, is all but completely cut off, must have its origin in the abnormal disintegration of tissue. The converse may also hold good to a greater or less extent, there being thus action and re-action. However probable may be the hypothesis of the intervention of the nervous system, the connecting link between the entrance into the organism of the fever excitant, the pyrogenic matter (be this *contagium vivum*, or or what it may), and the onset of the characteristic phenomena, has not yet been demonstrated. In short, the proximate cause of fever remains undetermined.

INFLAMMATION AND CONGESTION—THEIR RELATIONS.—Dr. G. R. Peaslee (N. Y. *Med. Jour.*, Jan. 1, 1875), summarizes his views on this subject as follows:

1. Inflammation is not a mere state of a part, as quoted from Celsus for almost 1,700 years, in which there is redness, heat, pain and swelling. It is a process going on in a part; and the four signs just mentioned do not distinguish it from still another pathological condition.

2. Congestion is merely a state of a part in which redness, heat, pain and swelling may exist, but it is not a *process*.

3. Inflammation has its own characteristics, immediate effects and sequelæ, if any at all ensue, and they very frequently do ensue. Congestion, also, has its own effects and sequelæ, both differing, however, from those of inflammation, and much more rarely ensuing.

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9. Chronic inflammation is, therefore, a contradiction and a chimera. The so-called chronic inflammations of the uterus are simply chronic congestions; actual inflammation may, however, recur from time to time, in a chronically congested part, there to rapidly run its course and disappear.

TEMPERATURE IN INTOXICATION.—Dr. J. J. Reincke *(Deutsch. Archiv. of Klin. Med.) (The Clinic,* Jan. 22, 1876*)*, gives the following remarkable case: A young laborer, aged thirty-four years, was brought to the police station one February morning when the temperature of the atmosphere was 33.8° F. The temperature in his rectum was only 75.2° F. He was frozen perfectly stiff, and no reaction of any kind could be obtained. The temperature of his body gradually increased, and by the next morning had become normal, when he was allowed to go home feeling perfectly well. This person had become intoxicated, and was picked up in the streets.

Physiology.

CHEMISTRY OF THE BRAIN.—Dr. Thudichum (*Brit. Med. Journal,* Sept. 2, 1876) gives the results of a large number of very careful observations on the above subject. The labor expended in the researches was enormous. Two thousand brains were used. Those of the ox were found most available. He found:

1. Brain mattter contains a large quantity of water chemically combined with various substances so as to form a colloidal mass, thus permitting great mobility of particles and also penetrability of other substances by liquid diffusion.

2. The brain contains "a considerable amount of an albuminous base" which, according to Dr. Thudichum is not present in a liquid unattached form as in serum, but appears to be governed by matters peculiar to the brain.

3. There are certain substances found in large quantities in

brain matter though not peculiar to it. These he has divided into three groups.

a. Phosphorized Bodies, containing five elements, carbon, hydrogen, nitrogen, oxygen, and phosphorus. All these bodies contain the phosphorus in the form of phosphoric acid which is combined with glycerine. Under various processes glycerine phosphoric acid is produced. It was found that they differ among themselves in the mode in which they contain the nitrogen and the acid radicals. Accordingly they are split up into sub-groupes; the kephalines, the myelines, and the lecithines. The distinctions between these bodies are as follows: The kephalines possess the tendency to be oxidised—oxidisability: the myelines are not easily changed by any agent or influence and possess therefore stability; the lecithines easily fall to pieces, they are afflicted with lability. Dr. Thudichum points out that these phosphorised bodies have a remarkable diversity of affinities; for example, alkaline affinities for acids, acid affinities for alkaline, and alkaloid affinities for salts. These affinities are overcome by water in quantity, but the affinity for water is in turn overcome by such metallic oxides as those of lead, copper, manganese iron, etc. The inference is, therefore, that if these substances do exist as such in living brain matter, we have an incalculable number of states or conditions of this matter, and thus "it foreshadows on the chemical side the remarkable properties which nerve matter exhibits in regard to its vital functions. From this it also follows that nerve matter must yield obedience to every, even the slightest, external chemical influence which may reach it by way of the blood. It must take up metals, acids, salts, alkalies, and alkaloids presented by the blood; it can retain only oxides when the serum is again free from the combinants. A watery serum will wash the brain; a more watery one will make it swell and displace mechanically what it can; a still more watery one will make the brain dropsical and produce all the conditions of mechanical pressure on the brain."

b. Nitrogenised Substances containing four elements but no phosphorous, such as cerebrin, stearoconate, ect. These are less soluble than phosphorised bodies—more stable compounds, and less liable to oxidation. They are colloidal and do not pass through the septum of the dialiser.

c. Oxygenated Principles, containing only three elements, viz., carbon, hydrogen, and oxygen or cholesterine. In this research eighteen bodies have for the first time been discovered as ingredients of brain matter. The practical importance of these inquiries is manifest and we trust that Dr. Thudichum will continue his good work.

THERMAL INFLUENCES PROCEEDING FROM THE HEMISPHERES OF THE CEREBRUM. — Drs. Eulenburg and Landois, (*Centralblatt; Lond Med. Record*, August 15, 1876,) record some results of a series of experiments with reference to the heat centres of the cerebrum. The conditions of the experiments were such as to justify the conclusions:

1. Destruction of certain regions of the anterior lobes of the brain corresponding to the temporal region, caused at once a considerable increase of the temperature in both contra-lateral extremities. The increase of temperature occurred immediately after the complete destruction of the corresponding parts of the surface of the brain, often before the animal awoke from the chloroform and before it made any spontaneous movement. The increase immediately after the operation may be 5° to 7° Cent., in other cases only 1½° to 2° Cent.

2. The thermal areas for the anterior and posterior extremities are separated from each other. The area for the forefoot lies somewhat external, close to the lateral end of the sulcus cruciatus. Destruction of the supra-sylvian gyrus has no thermal effects.

3. In successful cases, after the animal awakened from the chloroform, there generally was disturbance of motion, and it seems that the portions of the surface of the brain which have this thermal action must lie in the neighborhood of the corresponding motor areas.

4. The increase of the temperature is in nearly all cases clearly pronounced for a long time after the injury, sometimes even for three weeks; generally, however, it returns to the normal on the second or third day. Localized electrical stimulation of the above areas, with sufficiently weak currents, is accompanied by a small and temporary diminution of temperature in the contra-lateral extremities. From these facts the author thinks there is a vaso-motor apparatus in the gray matter of the brain, and that it partly represents the central terminations of the vaso-motor nerves which run in the cerebral peduncle.

OVULATION THEORY OF MENSTRUATION.—Dr. A. Reeves Jackson (*Am. Jour. Obstet.*, Oct. '76), in an elaborate paper discusses the evidence on which the ovulation theory of menstruation is based and summarizes his argument as follows:

1. Ovulation and menstruation may each occur independently of each other.

2. Ovulation is the irregular but constant function of the ovaries, while menstruation is the regular rythmical function of the uterus.

3. Ova are matured and discharged from the ovaries at all periods of female life, from early childhood to old age, both before puberty and after the menopause—hence one cannot be the sign of the other.

4. Menstruation is the consequence of conditions established by the structurally completed uterus, and depends upon ovulation *only* for its origination.

5. The mucous membrane of the uterine body is the only organ essentialy concerned in the menstrual act—the uterus

proper, the ovaries, Fallopian tubes and vagina have their functional activity increases however, by receiving a share of the general pelvic congestion, which accompanies the process.

6. The menstrual congestion of the pelvic organs, of the ovaries in particular, is of all causes the one most likely to determine the ovipont, when a Graaffian vesicle is sufficiently mature, and hence ovulation and menstruation are frequently concurrent.

7. The theory that would make menstruation dependent upon ovulation fails to account for the possible occurrence of pregnancy at any and all times between the menstrual periods, for multiparous conceptions, for the frequent persistence of menstruation after the removal of both ovaries,for the non-interference with menstrual regularity by removal of *one* ovary, and for the menstrual derangement and the shifting of menstrual periodicity from mental emotion.

8. All the known facts in regard to both ovulation and menstruation are consistent with the theory that after the latter is once established the two functions proceed side by side but independently of each other, the former occurring at irregular and the latter at regular intervals—while on the contrary many of these facts are wholly inconsistent with the theory that assumes a necessary ovular maturity and rupture at each menstrual period.

INFLUENCE OF THE FIFTH NERVE ON INTRA-OCULAR PRESSURE.—Dr. Bull *(N. Y. Med. Record*, Aug. 19*)*, says that by irritating the medulla at the deep origin of the fifth nerve the intra-ocular pressure is always increased, and lasts some time after cessation of the irritation. The result of irritation of the fifth is always the same whether the cervical sympathetic was previously divided or not. The explanation is probably as follows: The first cause of increased tension is an active dilatation of the blood vessels of the choroid and iris; the fact that the irritation of the fifth nerve increases the tension even after evacuation of the aqueous humor proves that secretion or transudation of the ocular fluids occurs somewhere during this irritation. It is further proved by another experiment, if we divide the spinal cord between the occiput and the third cervical vertebræ no considerable increase of intra-ocular tension is produced, but when the fifth nerve is irritated in the same animal there is.

COLOR-BLINDNESS IN SAILORS.—Drs. Feris and Favre *(Brit. Med. Jour.*, Nov. 15, 1876*)*, from special investigations, have ascertained that of 2,408 collisions at sea from 1859 to 1866, 536 may be imputed to a wrong interpretation of color signals at night from the color-blindness of the officer in charge. Of 502 sailors examined by the above gentleman, 9.4 per cent. were color-blind. Stokers and engineers are among those who suffer most from color-blindness.

SMUT OF CORN—ITS PHYSIOLOGICAL ACTION.—Prof. Lombrose *(N. Y. Med. Jour.*, Dec. '76, Lo Sperimentale*)* has discovered in the oil of the smut of corn a special alkaloid which he calls pellagroznia. The physiological action of this new principle is analogous to that of strychnia, viz.: exaggeration of the sensibility and of the muscular contractility which constitutes the basis of tetanus. There are other analogies in the local caustic action, in its anti-putridity, the retarding action on the heart, the respiratory paralysis, and in the phenomena presented after death.

It was also noticed that narcosis follows the tetanic action of pellagroznia in the same manner that it does that caused by strychnia. Further, in the oil of spoiled corn there is a second poison which has an action evidently analogous to cicuta and opium manifesting itself by paresis and by paralysis of the inferior extremities, salivation, coldness, somnolence, insensibility and clonic convulsions associated with fibrillary contractions.

Comparing these phenomena with those presented by patients suffering from pellagra he finds a close analogy. From these facts the author concludes that not only is pellagra due to spoiled corn, but also that in the poisonous products of fermentation the cryptogamic form is of slight importance, while the chemical mutations are of very great weight.

Surgery.

PORT WINE MARK—ITS REMOVAL WITHOUT SCAR.—Dr. Squire gives the following method for the removal of port wine marks: Freeze the part to be operated upon by means of the ether spray until perfectly insensible; then scratch it with an ordinary cataract needle with parallel scratches; then place a piece of blotting paper on it before it has been thawed and consequently before it has begun to bleed, pressing it firmly on the skin for five minutes. After half an hour wet the paper with cold water and remove it carefully in the direction of the scratches, for if peeled off transversely to them it will begin to bleed. The surface of the skin will be found to be covered with a thin clot of blood, which should be carefully washed off with an camel's hair brush, moved in the direction of the scratches. The surface may then be coated with a thin film of glycerine by means of the brush by which any subsequent hot and hide-bound sensation is avoided. The scratches need not reach more than half through the thickness of the skin—not more deeply than the sixteenth of an inch at most and should not be farther apart than the sixteenth or thirty-second of an inch. Should the operation require to be repeated it may be undertaken within a few days, in which case the scratches must be made in a direction oblique, or transverse to the original ones, and this may be repeated as often as may be required. No scar whatever remains and no trace of the mark is left within a fortnight after a successful operation.

SCIATIC NERVE UNITED BY SUTURE.—Mr. Farrell (Boston *Medical Journal*) stated that Mr. Wheelhouse inserted sutures into the ends of a divided sciatic nerve with apparently the ultimate result of obtaining union between the two portions, and restoring functional continuity. Langenbeck has since performed the same operation in a case in which the nerve had remained divided for two years. Two months after the operation there was an increase in sensation, but not in motion.

TARTRATE OF IRON AND POTASSA IN THE TREATMENT OF VARICOSE ULCERS.—A two, four or six per cent. solution of the tartrate of iron and potassa (with the addition of a little ammonia to prevent precipitation) is reccommended as a dressing for varicose ulcers. The solution is applied by means of charpie which is saturated and applied to the ulcer morning and evening, at first, and when cicatrization has commenced, in the evening only. Over the charpie place a dressing of simple cerate; should there be much pain, dress with opium cerate for a few days, after which use the solution exclusively. The charpie must be fine and the cerate covering abundant. Remove the charpie dressing after having saturated it so completely as to allow its removal without the retention of a single filament by the sore, as that would disturb the healing process.

INJECTIONS OF CHLOROFORM IN SCIATICA.—A number of cases are reported of inveterate sciatica which had resisted all the usual remedies, in which deep injections of chloroform wrought rapid cures. The hypodermic syringe needle was inserted to its full length into the buttock or thigh, and from thirty to fifty drops of pure chloroform injected. None of the general effects of the chloroform or malaise were observed.

PELIOSIS RHEUMATICA.—Dr. W. T. Taylor in the *American Practitioner*, reports a case under the above name. The patient was found on examination to be suffering from the characteristic eruption and pain of herpes zoster, extending obliquely from the spine around the body, and terminating at the left groin near the inner side of the thigh. The eruption followed the usual course of the disease. The pain, however continued with unabated, and in fact, increased severity, deep-seated, burning and continuous with no relief, except that which came with opiates, and lasted three or four weeks in spite of all efforts to effect a cure. At the end of this time the pain was transferred to the thigh and leg, following the course of the great ischiatic and posterior tibial nerves. After a few days the foot and ankle began to swell, and in a few hours were immensely puffed up, pitting on pressure. The following morning the anterior portion of the lower half of the leg and foot were covered with dark red, livid or purple spots from the size of a shot to that of a silver dime, which remained unaltered under pressure. They retained their color for two days, then became darker, then reddish brown, and finally yellow, after which they faded out without desquamation. The pain abated somewhat during this eruption. After two weeks of improvement the pain and swelling returned, and the eruption, also. made its appearance, and ran the same course as the first, to be followed by similar recurrences, at intervals of two weeks. The eruption seemed finally to wear itself out and gradually disappeared.

The heart sounds revealed a loud systolic murmur, and the pulse was irregular. Was the morbid condition owing to small fibrinous masses detached from the valves of the heart and passing into the capillaries, causing there stagnation and coagulation; or could the conditions noted be the result of the decomposition of the fibrinous matter in the blood and consequent blood poisoning ? These questions suggest themselves in endeavoring to ascertain the etiology of this affection.

TREATMENT OF ABSCESSES BY HYPER-DISTENTION WITH CARBOLIZED WATER.—Dr. Geo. W. Cullender, in the *British*

Medical Journal for November, speaks very highly of hyperdistention of the abscess sac with carbolized water as a means of cure for such abscesses, whose cavities are partitioned by septa, and are,from this reason, ineffectually cleaned by other methods. He details three cases in which he employed this means with the effect of reducing the abscesses to simple non-suppurating sinuses. One of the cases was of an angular curvature of the spine, another of disease of the vertebræ and the third of renal calculus. The patient having been anæsthetized, where no sinus exists an opening is made, with a scalpel, of sufficient size to admit a finger. The pus is allowed to escape and the abscess emptied as completely as possible. An ordinary two or four ounce syringe is then filled with a lotion of carbolic acid, one part of acid to thirty of water, and the nozzle inserted into the opening. The skin is drawn closely around the nozzle by the operator's left hand, and the lotion forced into the abscess sac. After the distention has been effected the fluid is allowed to return. If it is accompanied by much pus the operation should be repeated. An elastic drainage tube is then inserted into the wound and secured; over the end of this and over the wound, a piece of lint, twice folded and soaked in carbolized oil, is laid. This is covered with a sheet of gutta-percha tissue, and some tenax, and these dressings are secured by some ordinary plaster. The drainage tube is gradually shortened as the abscess wall contracts, and through its canal, if there be any sign of puriform discharge, a little carbolized water may be occasionally injected.

VALUE OF THE ATOMIZER IN DISEASES OF THE EYE.—Dr. M. Landesbury, (*Med. Times,*) says, that the use of the Atomizer is very injurious in all inflammatory conditions of the mucous membrane of the eye, with or without complication of the cornea. Its success in trachomatous pannus is inferior to that hitherto gained by other treatment. In the developement of genuine diseases of the cornea, the application of the Atomizer is harmful; but as soon as the inflammatory appearances have subsided, we have in the Atomizer a valuable means to bring the disease to a rapid end and to facilitate the absorption of the opacities of the cornea.

In all recent opacities of the cornea, especially after burns and sloughing there is no other means so well calculated to restore the transparency of the cornea as the use of the Atomizer. Diffuse keratitis is best treated by the Atomizer. The period of treatment was reduced one-half in the cases observed. The substances used were sulphate of copper, with and without laudanum; simple laudanum; ext. opii; cuprum aluminatum; sodii chloratum; sodii carbonas. The best results were obtained with extract of opium. The length of each application varied from three to six minutes for each eye according to the irritation.

ASTIGMATISM.—ITS RAPID DIAGNOSIS.—M. Bravais, of Lyons, France, has adopted a simple ophthalmoscopic device to effect a rapid diagnosis of astigmatism. While examining the inverted image, if at the moment the optic papilla is seen at the centre of the glass, lateral movements are given to the objective lens, the ophthalmoscopic image moves also, but varying in degree according to the refraction. If the eye be myopic, the movement is less extensive, if hypermetropic, more extensive than that of the lens, and if emmetropic the papilla continues visible at the centre of the lens, the displacement of the image and glass being equal, so that by moving the objective lens in different directions, it may be quickly determined which of the meridians is emmetropic, hypermetropic or myopic.

Obstetrics.

CÆSAREAN SECTION.—Dr. Edmunds (*British Medical Journal*, Dec. 2d, 1876), reports a second case of successful section, in which he closely followed the operative procedures employed in his first operation. Care to prevent all septic infection was diligently made use of, and oleum terebinthinæ applied as an hæmostatic as well as careful manipulation of the uterus before the final closure of the abdomen. No sutures were placed in the uterus. Dr. Edmunds argues that this operation apart from the danger of internal hæmorrhage after the conclusion of active procedures, need not be more than half as fatal as ovariotomy, as in the latter cases, there is frequent question of rupture of adhesions of extensive interference with the peritoneum and of the complications of malignant disease.

Editorial.

NOTICE TO CORRESPONDENTS, ETC.—Communications intended for publication, and books for review, should be addressed to "Editors of Detroit Medical Journal, care of E. B. Smith & Co., Detroit."

All remittances of money, all letters on the business of the JOURNAL, pertaining to subscriptions or advertisements, should be addressed exclusively to the publishers, E. B. Smith & Co., corner Fort and Griswold Streets, Detroit, Mich.

Original Articles, Reports of Medical Societies, Observations, Correspondence. News, etc., of general interest, are respectfully solicited from every source. Articles should be practical and carefully prepared.

The Editors will not be responsible for statements made over the names of contributors.

The Metric System.

The timely article of Dr. Lathrop, on this system, in our present number, will be read with interest. The propriety of substituting it for the one now in vogue, has for some time engaged the attention of the more progressive members of the profession; and we are of the opinion that a discussion of the question by the medical journals will make this attention general. The want of a uniform system of currency, weights and measures, has long been a desideratum which has been the cause of no little inconvenience among nations having intimate commercial relations. The improvements in the methods of locomotion and communication of the present century, have brought men much nearer together than formerly, and in proportion, as their relations become more intimate and inter-dependent, does the want of a common language become more pressing. The obstacles, however, to the adoption of a common tongue, are of course insuperable, although some sanguine cosmopolites profess to a faith that even these will be removed at no very distant day. But what we have to engage our attention now, is the question of the desirability and the feasibility of the adoption of common terms expressive of weights and measures. All innovation is suspicious and it becomes us to cling to the old until something decidedly better is offered as a substitute; but while the conservatism of long-established custom is commendable, the times demand something better than the moss of antiquity as a passport to esteem. "Reform" is a watchword on which politicians have no special claims to a copyright, and the question which the subject under consideration suggests is, "Is reform necessary?" There are a number of arguments in support of the affirmative of this question, and we shall endeavor to advance a few of them.

Reform is necessary in order to bring about a system of uniformity with nations with whom we are intimately related and on whom we are largely dependent for scientific discoveries. At present England and America are the only nations of any importance which have not adopted the metric system in weights and measures. Throughout the continent of Europe, including Russia, in Mexico, and in the principal South American States, this system prevails. These countries represent a population of nearly 500,000,000, while the countries which adhere to the old and more cumbrous system represent but 80,000,000. Numbers, therefore, are in favor of a change. According to the *N. Y. Medical Record*, which has just completed a series of articles advocating the adoption of the metric system, "the New York Medical Journal Association, which endeavors to cater to the literary wants of the greatest number of its members, subscribes to seventy-seven periodicals, of which twenty-two are American, fourteen English, seventeen French, twenty German and two Italian; that is, there are forty-one journals in which all quantities are expressed metrically, against thirty-six in which the old system is employed."

Another argument in favor of a change of some kind is the fact that even in the only two nations in which the same terms are employed, these terms do not in every case express the same quantity. The fluid ounce, for instance, represents in England 437½ grains of water and constitutes the twentieth of a pint; in this country it weighs 455⅝ grains and is the sixteenth of a pint. It is not difficult to perceive how a discrepancy of this nature tends to mislead.

A uniform system is desirable also from the fact that the druggists of this country represent a variety of nationalities in their education and, consequently, a variety of conceptions as to the quantities designated in prescriptions by similar terms. In Germany, even before the introduction into that country of the metric system, they knew nothing of fluid measure in dispensing, all quantities being designated by weight. When a German physician therefore in this country sends his prescription to a druggist educated in this country, he runs the risk of having a fluid ounce put up when he intends a Troy ounce; and what is the difference? A Troy ounce contains 480 grains, while a fluid ounce, in this country, contains but 455⅝ grains—a difference of 24⅜ grains. Can we wonder then why it is that our German physicians manifest such a decided preference for druggists educated in the same school with themselves? Something more than "vaterland" explains the preference.

The distinctions between avoirdupois, troy and apothecaries weights are also confusing, and so much so, as to cause some of our druggists to evince a refreshing impartiality in their use of the scales on their counters, and those behind their dispensing case. The comparative innocuousness of the drug in many cases, rather than the skill and carefulness of the apothecary is the patient's safeguard.

The objections which are urged against a change to the metric system, are more numerous than they are valid. It is urged that the change would disarrange our preconceived ideas of the sizes of doses. Any inconvenience from this source would, however, be but temporary. Our dose lists are very arbitrary and far from perfect, and the change they would undergo by an easy rule, which is recommended for changing the present denominations of weights into the metrical, would be practically unimportant. This rule, as given in a recent number of *New Remedies*, is "to choose the nearest round number ending in 0 or 5, excepting in case of very potent remedies. It is not necessary to pedantically translate one system into the other. Indeed, by remembering the following simple rules, the translation becomes exceedingly easy:

First. In prescribing the equivalent of *drachms or ounces*, multiply the number of drachms by 4, and round off the product.

Reckoning a drachm equal to 15 grains, (which is, in practice, correct enough,) we would therefore write instead of ½ ʒ: 2.0 gm.; for 1 ʒ: 4.0; for 1½ ʒ: 6.0; 2 ʒ: 8.0; for ½ ℥: 15.0 (rounded off); for 1 ℥: 30.0 (instead of 31.1).

Second. In presenting the equivalent of *grains*, *multiply the latter by* 6, and round off the product, which is the corresponding quantity in *centigrammes*.

3 grains: 3×6=18, rounded off 20 ctgm, or 0.20 gm.
4 grains: 4×6=24, rounded off 25 ctgm, or 0.25 gm.
10 grains: 10×6=60, (instead of 66), or 0.60 gm.

"A change would necessitate our druggists becoming familiar with the new system; and while learning it, errors would be liable to occur," is an objection seriously raised. This objection is similar to that which was urged against the locomotive steam engine: that it would be apt to kill cattle which might get on the track. Our druggists are presumed to be men of ordinary intelligence at least, and should there possibly be any who could not take in the change, they must, in conformity to the law of "the survival of the fittest," take a back seat. Let physicians, who contemplate adopting the new plan, give their apothecaries notice of the change, and the instinct of self-preservation will stimulate them to become posted.

"The change would necessitate the purchase of a new set of weights by the druggist." Very true; and this would not be an unmixed evil, when we recall the fact, for fact it is, that the weights employed by three-fourths (we might say nine-tenths) of our druggists, are incorrect; in many instances they do not even approximate what the marks stamped on them represent them to be. Our laws require that the dispensers of hay, groceries, beef and other commodities, shall use correct weights, but the dispenser of prescriptions is never questioned as to the correctness of his weights. Reform in this matter is very necessary, and the chances of securing it would be much greater by adopting the new system than by attempting to remodel the old. The manufacture and sale of metrical weights, are as yet in the hands of firms who have reputations at stake; and in purchasing, druggists should buy none to which the maker's name is not attached, and should be also satisfied that such name is a guarantee of honesty and accuracy.

In conclusion, the arguments in favor of the change, largely preponderate, and we hope soon to have all our correspondents make use of the new system in their communications. We are satisfied that it only requires a trial to bring it into general favor.

J. J. M.

Memoranda.

The medical society of the county of New York has recommended to its members the use of the metric system in their prescriptions.

Dr. Jos. Carson, late Professor of Pharmacy and Materia Medica in the University of Pennsylvania, is dead.

Ten doctors bid for the post of county physician in Camden Co., N. J. The bids ranged from $375.00 to $500.00 per year. The one appointed sent no bid.

Concerning the recent Arctic Expedition, Mr. Malley, of the Alert says, that among the few men who escaped scurvy and did any sledging, were four teetotallers.

A healthy person runs double the risk of phthisis in the city than in the country.—*Müller.*

Dr. W. Farr says that the mean duration of life, in London, Eng., was little more than twelve years in the seventeenth century, was about twenty years in the eighteenth century, whereas it is now about forty years.

Eighty deaths from diphtheria occurred in New York during the third week in December, '76.

The *Nashville Medical and Surgical Journal* has passed into the hands of Drs. W. K. Michol and C. S. Briggs.

The *Southern Medical Record* will be reduced both in size and price. Cause, hard times.

The *American Medical Weekly* has been changed to a semimonthly—price, $3—twenty-eight double column pages each issue. Its general appearance suggests an imitation of the *Medical Times.*

The physicians at Saratoga report that syphilis in all its forms prevails extensively among the waiters at the large hotels The chances they possess for communicating it to the guests are said to be excellent:

The deaths at Lansing, Mich., as reported by Dr. H. B. Baker, were for November, 1876, at annual rate in 1,000, 4.10; for December, '76, at annual rate in 1,000, 7.89.

The *American Practitioner,* Dec. '76, says: "that more than thirty thousand dollars has been expended upon it during the eleven years of its existence. To our sorrow it cannot be said that advertisers and subscribers have paid all this."

Dr. A. E. Macdonald, physician of New York City Hospital for the Insane, says that during the past year there were four hundred and one admissions. Of these two hundred and eighty were intemperate, ninety were moderate drinkers, and only seventeen were abstinent. This record combined with those of former years shows that intemperance, more than all other active causes put together, is responsible for the mental aberration of the patients in this special asylum.

Dr. Gray, of the New York State Asylum, at Utica, N. Y. says that the system of forced ventilation in use since 1854 at that institution, has been such as to supply each person with an average of 152 cubic feet of fresh air each minute, night and day, during the entire year. During December, January, February and March, the supply is 120 cubic feet to each person. In April, May, October and November, it is 137 cubic feet to each person. In June, July, August and September, it is 200 cubic feet to each person. The amount of coal used in thus forcing the air in the rooms was ¾ths of a cent a day for each person.

The quarterly *Journal of Inebriety*, published under the auspices of the American Association for the cure of Inebriates, vol. 1, No. 1, pages 64; edited by the secretary of the association, Dr. T. D. Crothers, Binghampton. The present number contains the anniversary address by Dr. T. L. Mason, a paper on the cause of the increase of inebriety in America, by Dr. Geo. M. Beard; the proceedings of the association, and an editorial department. The editing is carefully performed. The price, $3.00 for 256 pages, seems rather high.

We have received the first number of the *Toledo Medical and Surgical Journal*, edited and published by Dr. J. Priest, pages 32, price $1.50. In spite of the instruction periodically given by the *Medical Record* and various other journals, Dr. Priest thinks that another journal is needed. We hope he is not mistaken and that the profession will support him especially with liberal subscriptions. We hazard nothing in the suggestion that Dr. Priest's thoughts on medical journalism will be more valuable after he has acted as editor and proprietor of a medical journal for a few years.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

A TREATISE ON HERNIA, WITH A NEW PROCESS FOR ITS RADICAL CURE, AND CONTRIBUTIONS TO OPERATIVE SURGERY AND NEW SURGICAL INSTRUMENTS. By Greensville Dowell, M.D. Cloth; pages, 205. 1876. D. G. Brinton, 115 South Seventh Street, Philadelphia, Pa.

Briefly the author gives a general discussion of hernia, and the various methods for its radical cure. Then his own new method is fully described as follows: "The instruments employed are a double spear pointed semi-circular needle with an eye in each point, silver wire, a piece of cork or soft wood and a roll of adhesive plaster. The parts are well shaved, and three lines drawn, with a small brush and tincture of iodine, parallel to the direction of the hernial orifices, central line immediately over the internal orifice, and passing down to the external orifice if the hernia be oblique-inguinal; in other varieties immediately over the greatest enlargement of the tumor. The needle is then taken hold of by the left hand at its unthreaded end, then the right hand, with the thumb and forefinger, pulls up the skin and superficial fascia as high as it can be done, to the right of the middle line, letting the middle line be just below the point of the thumb. The threaded end is then pushed through the fold held below the point of the thumb and index finger. The fold is then let loose, and the threaded end is taken by its point with the thumb and fingers of the right hand. It is then pulled on until the unthreaded end comes just under the outside line of the right side of operator and left side of patient. The index finger of the left hand is made to invaginate the integuments as far as possible, and the finger pushed to the right under the left tendon of the patient. The right hand then raises the needle so as to have it point directly over the point of the finger and a little to the outside of it. The needle is then pushed directly down through the tendon into the peritoneal cavity; at this stage the point of the index finger of the left hand is raised to the right side of the patient, and held under the tendon; the needle is then moved about to see if it be loose and turned in its curve, so as to carry the curved portion of its point under the invaginated integuments, etc., to about one-quarter of an inch of the right tendon; the end is then brought on the outside line of the patient's right side. The index finger of the left hand is then taken out and the threaded end let go, and the unthreaded end is then held by the thumb and index finger of the right hand. It is now gently pulled on until the threaded end comes above the tendon. The point threaded is then reversed, and keeping well down on the tendon, is finally pushed out at the first puncture and pulled entirely out, leaving the two ends of the ligature close together in the same puncture. In this way a ligature is placed around two sides of the rupture, with enough tendon and muscle to give the thread sufficient surface to act on. Now by pulling the two ends of the thread the rupture is closed internally, and its natural support replaced. The ends are now tied around a roll of adhesive plaster, a piece of cork or wood." Of ninety six operations made according to this method, eighty were perfect, and the rest failures.

The author gives a series of rules, the observance of which will ensure a cure in all cases. This operation constitutes the backbone of the book, the substance of the remaining portions being, in the main, filling.

However valuable the operation described may prove, the quotations already made show that the book is a failure if judged from a literary stand-point. Even the elaborate and often instructive plates do not redeem it. Still the author is a practical surgeon, and to a practical surgeon his book will be both suggestive and instructive. L. C.

FOURTH ANNUAL REPORT OF THE BOARD OF HEALTH OF THE CITY OF BOSTON. 1876. Paper; pages, 90. Boston, Mass.

In addition to the routine official documents of such reports, there is an interesting report on "Infant Mortality," by W. L. Richardson, M.D., Boston. The death rate of Boston for the year ending April 30, 1876, was 28.08 per thousand. This high death rate, as compared with that of other cities, is thought to be due to (1) the wretched sewerage, and (2) the more perfect registration of the deaths. One thousand three hundred and sixty-one died of consumption. The largest number died in April, next in October, next in January. The death rate of infants was 94.84 per thousand; among those over five years old, 16.73 per thousand. Of 4,167 deaths of children under five years of age, 687 were due to "cholera infantum," 467 to scarlet fever, 405 to diphtheria, 342 to marasmus, 230 to pneumonia, 212 to meningitis, 204 to croup. The death rate of infants of one month and under was 792.20 per thousand. This enormous death rate diminished to 30.22 per thousand among those between four and five years old. The greatest number of deaths was among those of foreign parentage. The death rate in some parts of Boston was as low as 37.13 per thousand, while in other parts it was 96.14 per thousand. More than half of the infant mortality was due to preventable causes, induced by ignorance, poverty and immorality. To reduce the death rate of infants, the following measures are proposed: (1.) Greater attention to the general sanitary condition of the city. (2.) The establishment of public parks and squares in and about the city.

(3.) A systematic and frequent inspection of the homes of the poor. (4.) The dissemination of rules which should govern the bringing up of children. (6.) The establishment of diet kitchens; of county houses; of infant day-asylums; of foundling hospitals, and the isolation of contagious diseases. L. C.

A LECTURE ON SPECIALISM IN MEDICINE. By Dr. G. D. Ford. Reprinted from the Amer Practitioner. Nov. 1876.

The positions taken in this address are these:

(1.) "Specialties pursued by men of general and proficient cultivation in the science of medicine, who have had clinical experience sufficiently enlarged to give them acquaintanceship with the current morbid processes of the body, and enable them to distinguish between them and to trace them to their probable pathological sources must rarely fail to be productive of good both to the profession and public, and materially advance the interests of science.

(2.) A person, notwithstanding he may be of gigantic intellect and untiring industry, unless he becomes a general medical scholar and a patient, careful student of diseases generally cannot become a successful and useful specialist, but will retard progress and injure the science by his frequent blunders and so be the instrument ot mischief to the public."

AMERICAN CLINICAL LECTURES.—Edited by Dr. E. C. Sequin.—Spinal Irritation—Its pathology and treatment, by Dr. Wm. A. Hammond.

In this lecture, Dr. Hammond still maintains the existence of a special disease under the above name - all the world to the contrary notwithstanding. He believes that this disease not only exists, but that its pathology is due to anæmia of the posterior columns of the spinal cord. His reasons for this belief, he gives under eight different heads. Each reader will judge for himself whether he has thus proved his point. For ourselves, we think all of his reasons would apply equally well to several other hypotheses. That in so called cases of spinal irritation there is malnutrition of the posterior columns of the spinal cord, we are prepared to admit; but that this malnutrition depends upon anæmia, we see no grounds for believing. For their healthy activity, the posterior columns need good blood in sufficient amount, a proper activity of the lymph canals and of the nerve cells and fibres, all arguments drawn from physiology or demonstrated pathology or treatment. That nerve cells and fibres or lymphatic vessels may be directly deranged without reference to the state of the blood vessels, there is abundant proof. The theory of Dr. Hammond is pernicious in that it overlooks these facts. Pathologists must learn that each tissue of the body may be directly injured or destroyed as well as indirectly through the blood supply. Accumulating facts tend to show that very many cases of so-called disease of the spinal cord are secondary to some derangement in other organs whose nervous supply is direct from this part of the cord. In treatment, he calls attention to the fact that the cause of the disease should be ascertained and removed; of these causes he mentions over-work, or defective nutrition, or improper hygiene of some kind, certain emotions. Surely these are as capable of affecting the nerve cells, fibres, etc., directly as through the blood vessels; or if not always directly, at least through their connections with certain organs that first suffer from the particular cause. In any case the cause must be removed. As to medical treatment, he gives medicinally strychnia, quinine, iron and phosphoric acid. Blisters to the spine or actual cautery, nutritious food, pure air, and cheerful surroundings, are to be carefully looked after.

L. C.

FRACTURE OF THE PATELLA AND TREATMENT BY A NEW METHOD.—By Dr. H. O. Marcy. Reprinted from Boston Med. Jour., Dec. 7, 1876.

The features of this method are briefly; 1. The removal of the effusion into the joint if necessary, by the aspirator. 2. After the traumatic inflamation has subsided, he uses the following: Maw's adhesive plaster is cut in pieces of concentric shape, of considerable width, and carefully adjusted above and below the patella; the inner edges are welted over a small cord and the projecting points doubled back. These pieces are perforated for the introduction of an elastic cord. 3. The limb is carefully enveloped in a plaster bandage, extending from the toes to the hip and strengthened by inlaid pieces of tin. Rest and support are maintained as in fracture of the thigh. Tins are incorporated into the bandage on each side of the knee, of suitable shape to reinforce the fenestrum, which is cut in the bandage of oval shape and sufficiently large to liberate the entire patella with a free surrounding of nearly an inch. Loops of wire are also adjusted in the bandage, at suitable distances for the tying of the elastic ligatures fixed in the extremities of the adhesive plaster. Pressure is made upon the patella by the adjustment of the cords. The patient may, at once walk or ride, etc. Three successful cases are reported as evidencing the good results of the treatment.

ON THE TREATMENT OF ECZEMA.—By Dr. R. W. Taylor.

This is an exceedingly excellent lecture on a very important subject, giving the best and latest views on the matter.

AMERICAN CLINICAL LECTURES. Vol. II; No. VII. On Tracheotomy and Laryngotomy. By H. B. Sands, M. D. G. P. Putnam's Sons. Edited by E. C. Sequin, M. D.

An excellent account of the above topics by one of the best of surgeons. It will increase the already enviable reputation of these lectures.

Vol. II; No. VIII. The Hypertrophied Prostate. By Robert F. Weir, M. D.

In the city of New York, during 1875, fifteen hundred and four men past sixty died. One hundred and seventy-three died from urinary difficulties, of which forty-one and probably more were from prostatic diseases. Yet if properly treated, Sir. H. Thompson says that those affected with senile hypertrophy of the prostate live equally long with those not thus affected. To detail the natural history of such hypertrophy and to obviate its evil results are the subjects of this lecture.

SALICYLIC ACID. The Experience of Maine Physicians in its use. Reported by Dr. F. H. Gerrish. Reprinted from the Transactions of the Maine Medical Association. 1876.

The evidence here presented shows that salicylic acid is extensively and satisfactorily used in acute rheumatism and rheumatoid affections. As an antipyretic it was found efficient. Lastly it was found to be useful as a deodorant.

WESTERN NORTH CAROLINA AS A HEALTH RESORT. By W. Gleitsmann, M. D., Physician in charge of Mountain Sanitarium for Pulmonary diseases Ashville, N. C. Read before American Public Health Association. Nov. 1875.

An excellent description of climatic peculiarities of Western North Carolina. Those interested in the study of climates as related to the treatment of phthisis will do well to read this little essay.

THE TREATMENT OF ANTIFLEXIONS OF THE UTERUS. By Eli Van de Warker, M. D. Reprinted from N. Y. Medical Journal. June, 1876.

Dr. Van de Warker emphatically commends the use of intrauterine pessaries in the treatment of anteflexions of the uterus. Each pessary must be made specially for each case as the anatomical features of each differ widely.

INTRA-PELVIC PHLEGMONOUS TUMOR — INVOLVING RECTUM, UTERUS AND SACRAL PLEXUS. By Dr. Edward J. Bermingham.

The pelvic cellulitis in this case was so entensive as to occlude the rectum. The bowels were evacuated by passing an enema tube through the compressed rectum and washing out the accumulations. A good recovery took place.

A CLINICAL LECTURE ON THE TREATMENT OF INCIPIENT STRICTURE BY OTIS OPERATION. By Mr. Berkeley Hill, Prof. Clinical Surgery in University College. Reprinted from the London Lancet of April, 1876, with explanatory remarks by Dr. F. W. Otis, M. D.. Reprinted from London Lancet for June, 1876.

SULPHATE OF CINCHONIDIA. A Paper read before the Kentucky State Medical Society by J. W. Compton, M. D.

The following advantages over quinine are claimed for the above salt. Fewer relapses following its administration—the patient tolerates it better—there is less ringing and noise in the ears; less liability to deafness; less nervous excitability cr chance to produce diarrhœa, and lastly, its cost is one third that of quinine.

THE HISTORY OF SPONTANEOUS GENERATION. A paper read before the Ann Arbor Scientific Association, by Dr. E. S. Dunster, Professor of Obstetrics, etc., in the University of Michigan. Reprinted from the first volume of the Transactions.

This is a very thorough and able paper on the subject—one worthy of the attention of those who have not time or opportunity to look up authorities.

CLINICAL LECTURE ON THE USE OF THE PLASTIC DRESSING IN FRACTURES OF THE LOWER EXTREMITY. By Dr. D. W. Yandell, Prof. Surgery Univ. Louisville. Reprint from Amer. Practitioner, July, 1876.

In this lecture it is advised to dress fractures of the lower extremity immediately after the injury and to use the plastic dressing. Thus put up the limb will not swell.

MICRO PHOTOGRAPHS IN HISTOLOGY, NORMAL AND PATHOLOGICAL. By Carl Seiler, M. D., in conjunction with J. G. Hunt, M. D. and J. G. Richardson, M. D. Aug. 1876. Published monthly. Philadelphia, J. H. Coates & Co.

This contains the injected kidney of a mouse, showing the relations of the cortical to the medullary substance of the malpighian tufts to their arteries, and of both to the uriniferous tubules are plainly shown. The second plate illustrates chronic nephritis ; the third, the malpighian tufts, and the fourth, crystals of urea. With the explanatory text these are very instructive.

THE TREATMENT OF FEVER BY COLD. By H. A. Dubois, M. D. Reprinted from Transactions of the Medical Society of the State of California, 1876.

The main object of this book is to direct attention to the efficacy of running water in lowering the temperature. Blankets are made by coiling rubber tube in the proper shape and fixing it by sewing it between two sheets. Water is introduced at one end of the tube and escapes by the other into an appropriate vessel. In this way the heat is reduced to the desired standard. On the same principle a bed is devised, head caps, etc.

THE COLLATERAL CIRCULATION IN ANEURISM. Report of the Successful Ligation of the Innominate, the common Carotid, the Vertebral and Internal Mammary Arteries in a Case of Right Subclavian Aneurism. By A. W. Smyth, M. D. Paper, page 25.

The case which forms the basis of this paper is, in some of its features, unique. In the first operation only the innominate and carotid arteries were tied. Hæmorrhage from the sac through its distal end induced the effort to control it by introducing shot in the wound. After a time this failed, and as last resort the vertebral artery was tied, when the bleeding stopped. Some years afterwards, the aneurism returning, Dr. Smyth tied the internal mammary artery, and thus again successfully the aneurism was cured. A year afterward he died of an abscess near the shoulder.

THE USE AND VALUE OF ARSENIC IN THE TREATMENT OF SKIN DISEASES. By L. Duncan Bulkley, M. D. 1876. Pages, 75. N. Y.: D. Appleton & Co. Extracted from Report of Amer. Med. Association.

The results reached by the author we have given elsewhere.

THE POPULAR HEALTH ALMANAC FOR 1877.—Edited by Dr F. Hoffman, and published by E. Steiger, of New York.

This is an admirable publication, worthy of the heartiest support by physicians, pharmacists and people. Its object is to take the place of almanacs which are devoted to the advertising of patent medicines, etc.

The present number contains a varied and compact series of articles of genuine value to the average household. In addition to the tables for the twelve months, the sidereal and chronological features of the year, postal matters, the universal metric system, reduction of metric weights into avoirdupois weight and inversely, reduction of litres into quarts, and inversely we find the following:

Applied health knowledge, first help in accidents and emergencies, nostrums and their compositions, statistical tables, etc. All these articles are prepared with great care, for the special instruction of the masses in the avoidance of sources of disease and death. We trust that the enterprise may be heartily sustained by all interested parties. L. C.

THE MEDICAL LIBRARIES OF BOSTON.—By James R. Chadwick, M. D.

This is a report to the Boston Medical Library Association, of which Dr. Chadwick is librarian. He begins with a history of the Boston Medical Library, established in 1805, and continues with its successors until the founding of the last in 1875. Then a brief account of the results of one year's work in establishing a library are recorded. Four thousand four hundred and eighty-eight volumes were thus accumulated, of which nearly three thousand are Medical Journals. A reading room is stocked with one hundred and twenty-three medical periodicals. All this has been done and the Society is free from debt.

PELVIC-PERITONITIS. A Clinical study. By Curtis Smith, M. D. Reprinted from Amer. Jour. Obstet. Aug., 1876.

REMARKS ON INTRA-UTERINE POLYPI WITH REFERENCE TO THEIR DIAGNOSIS AND SURGICAL TREATMENT. By A. Reeves Jackson, M. D. Reprinted from Chicago Med. Jour. and Examiner.

THE OVULATION THEORY OF MENSTRUATION—WILL IT STAND? By A. Reeves Jackson, M. D. Reprinted from Amer. Jour. Obstet. Oct., 2876.

The essential teachings of this article we have given elsewhere.

ON MASTURBATION AND HYSTERIA IN YOUNG CHILDREN. By A. Jacobi, M. D. Reprinted from Amer. Jour. Obstet., Feb. and June, 1876.

A very suggestive essay on very important groups of cases.

Meteorological Report for December 1876.

BY C. HENRI LEONARD, M. D., OBSERVER FOR STATE BOARD OF HEALTH.

BAROMETER.—Highest, 30.517; lowest, 29.390; range, 1.127; average, 30, 015.

TEMPERATURE.—Highest, 42; lowest, —9; average, 18 5; range, 51. This has been the coldest December we have had since 1870; the mean temperature for 1871 being 25; for 1872, 20; for 1873, 46.4; for 1874, 29.7; for 1875, 33.4. The lowest temperature this month was lower, by from 6 to 25 degrees, than that recorded in the years above given, save in 1872, when the mercury sank to —14.

WINDS.—Prevailing direction s. w.; greatest velocity, 35 miles per hour; total number of miles traveled 5,821. At eight observations there were "calms," viz: at 9 p. m. of the 10th; 7 a. m. of the 11th; 9 p. m. of the 19th; 7 a. m. and 9 p. m. of the 21st; 7 a. m. of the 22d; 9 p. m. of the 27th. and 7 a. m. of the 28th.

CLOUDS.—Number of clear days, 1; cloudy, 18. Snow fell on 21 days. More snowy days this month than for any previous December since 1870, by from 2 to 10 days.

RAINFALL.—Greatest daily amount, .47 of an inch; this was on the 17th. Total amount of precipitation, 1.96 inches. In 1871 there was 1.88 inches; in 1872, 0.69 of an inch; in 1873, 4.69 inches; in 1874, 0.60 of an inch; in 1875, 3.20 inches.

MOISTURE.—This was at a minimum; the highest absolute humidity being but 2.35 grains per cubic foot of air. On three entire days, 9th, 16th and 17th, there were was so small an amount present (less than ½ grain) that we have exact tables for computing it. Of five observations, other than on the days mentioned, the amount was not computable.

OZONE.—Maximum coloration, 2. This was on the 19th, 20th, 29th and 30th. "Traces" were only observed at many observations. Coloration to 1 of the scale was observed at nine observations.

Frost occurred on the 5th inst. A lunar halo was observed on the 18th. "Storms" occurred on the 8th, 14th, 15th and 29th.

The following summary for the year has been furnished us by Serjeant Van Husen, of the U. S. Signal Service:

WEATHER FOR THE YEAR 1876.

	Mean Barometer.	Mean Temperature.	Highest Temperature.	Lowest Temperature.	Total Rainfall.	Prevailing Wind.	Number of miles traveled.	Maximum velocity of Wind.	Days on which Rain or Snow fell.
January	30.036	32.4	65	9	2.00	W.	7,150	36	19
February	30.036	28.6	54	4	5.59	W.	5,986	36	17
March	29.979	29.8	62	7	5.50	N. W.	6,646	32	20
April	29.964	44.0	69	25	1.80	W.	5,690	45	13
May	29.975	57.5	85	30	5.62	E.	4,896	20	20
June	29.863	69.3	88	50	1.51	S. W.	4,643	30	17
July	29.945	73.0	90	53	5.94	S. W.	4,293	36	12
August	30.002	72.1	87	46	2.46	S. W.	3,346	15	15
September	29.952	59.1	77	39	2.81	E.	4,487	24	20
October	29.917	46.2	72	24	2.89	S. W.	5,583	30	20
November	29.935	38.6	68	16	2.32	W.	4,233	36	21
December	30.015	18.5	42	9*	1.96	S. W.	5,821	35	21

* Below Zero.

STATISTICS FOR 1876.

No. of Auroras, 2; Storms, 23; Lunar halos, 10; Solar halos, 7; Frosts, 18; Meteors, 1; Fogs, 19; Parheliæ, 2; Coronæ, 2.

Detroit Medical Journal.

NEW SERIES. VOL. I. MARCH, 1877. No. 3.

Original Communications.

Remarks on the Origin and Propagation of the Typhoid Fever Poison.

BY J. S. CAULKINS, M. D., THORNEVILLE, MICH.

The theory that the zymotic diseases are caused by the invasion of the human organism by microphytes is just now making rapid progress. Indeed, in the case of typhoid fever, we need not longer understand the "germ theory" in the sense of a hypothesis to be disputed about as something probable, but in the sense of a doctrine, to be taught as something true. The latest researches on the subject, English, Continental and American, show conclusively that the cause of typhoid fever is a microscopical organism, that somehow gets a lodgement in the human system, and there lives, grows, and reproduces itself. It is probable, too, that this minute organism is not an animalcule, but a plantule—a microphyte and not a microzoon. It might be called a microfungoid. It is found abundantly in all the fluids of the body—blood, lymph, secretions and excretions, but most of all in those of the intestinal canal, for which it would seem to have an especial affinity, the most characteristic lesions of the disease being found there.

Although the histology of the changes produced by the invader in the human system is not understood, these changes must be entirely similar to those produced in other organisms by the attack of fungi. The condition, then, of the unfortunate person sick with typhoid fever is an exactly parallel one to that of a potato struck with the rot. Both are the victims of a fungus that lives, feeds, and multiplies at their expense.

There has been much pro and con argument over the contagiousness of typhoid fever, some eminent men holding that the disease can be caught, like measles, from the emanations into the atmosphere about the sick; others, equally eminent, believing that it is only through the instrumentality of the alvine dejections that the disease can ever be propagated. This is Liebermeister's belief, and Profs. Palmer and Dunster, of our University, have placed themselves on record as holding the same opinion.

It is believed that the fungus will live in the dejections for an indefinite period (and it is even suspected that it may reproduce itself in them), that it will filter through the earth a long distance into the drinking water, and give the drinker the fever, that if such water be drank by a cow, it will pass through her veins and reappear in the milk with unimpaired capacity for mischief to the one that drinks the milk.

In spite of the respect that the above mentioned names inspire, it is doubtful if the position that the atmosphere is not sometimes the carrier of the contagion is tenable, and its adherents may be compelled to modify their views, even if it should be ultimately proved that the only way the typhoid germ gets into the atmosphere, is in the ejected or dejected contents of the digestive tube.

The main argument in favor of their position is, that the typhoid microphyte is a water plant, and only fructifies in albuminous fluids. This is doubtless true, but it is not proved that if such fluids evaporate and the air of the chamber is filled with the plant or its spores in an exsicated state, that their viability is ***immediately*** destroyed, and while it lasts, it would seem that no condition could be lacking for successful propagation, for germs would be swallowed as well as inhaled.

It is not susceptible of proof that the disease is not taken in this way, and it avails nothing to quote fifty cases that did not take it after such exposure, for it does not prove that the fifty-first might not take it.

No doubt nearly all the germs that get into the atmosphere are soon destroyed, if proper cleanliness, ventilation, and disinfection are maintained, but in the absence of sufficient natural or artificial germicides, a few might escape and remain in hiding, to be revivified when again soaked in the albuminous fluids to which chance might introduce them. It is difficult, then, to see what the basis of the theory is, that seeks to establish a different method of propagation in typhoid fever, from that which obtains in the exanthems.

In neither case is it yet known how the germs get into the system, but it is believed to be, in the exanthems, either by the way of the oxygen into the lungs, or by the way of the saliva into the stomach, and so into the blood and lymph, through the capillaries and lacteals. What other course can the typhoid fever germ take, except one of these, and what vehicle, except the air, could convey it to the lungs or stomach? Certainly the food or drink could convey it to the stomach, but it must, as a general thing, get into the aliments out of the air.

We must, then, till more is known on the subject, leave typhoid fever (in respect to its method of propagation), in the same category with the exanthems, and for these reasons—

1st. It is incontestable that it, like them, spreads from a centre of infection.*

2nd. The exact manner in which either spreads, is not known, and, where all is conjecture, it is too early to dogmatize.

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*This is not denied by the gentlemen alluded to above. They admit that the typhoid germ is the starting point of typhoid fever, and are contagionists in the sense of believing in a ***contactum*** between the germ and its recipient. There are genuine Simon pure non-contagionists but with them I have no controversy, their views being already sufficiently refuted. My controversy is with those who, while admitting that typhoid fever is caused by a typhoid germ, yet believe in its spontaneous origin.

3rd. The lesser degree of contagiousness of typhoid furnishes no valid ground of objection, for the exanthems differ from each other in degree of contagiousness.

It can be remarked respectively of each of these three headings:

As to the 1st. It is not meant that typhoid fever always spreads. Many a case is the first and the last of the series, as far as one person's observation goes, and the same fact is often observed with small-pox, measles, and scarlet fever, especially the last, solitary cases of it being of common occurrence.

Shall we argue that because the case of typhoid was solitary, or because the source of the infection cannot be traced, that the poison that produced it sprang into existence on the spot, and died out there? Not at all, or if we do, we can as well say the same of the others, and, indeed, many do believe this of scarlet fever. Measles has been known to break out on ships six weeks at sea. Small-pox makes its unwelcome appearance in localities where it was never before seen, and where no *known* means of transportation can be traced; and scarlet fever comes and goes as mysteriously as an ill-laid ghost.

A case of any of these diseases is solitary, when the source of the contagion is unknown, and when *care* in the case of small-pox and measles, and *accident* in that of scarlet fever, and typhoid fever, prevent it from spreading farther.

As to the 2nd. It is not known how the seeds of any contagious disease get entrance into the human system. It has been commonly supposed that they were inhaled, and passed with the oxygen into the blood. Doubts have lately been thrown on this theory, and it is a grave objection to it, that if the system is open to invaston by this route, the bacteria of putrefaction, which are always in the air, would get into the blood vessels by it, and death from septicæmia would be an every day occurrence. This is Tyndall's opinion, and he compares the blood in its vessels to the juice of the grape in its impervious skin. Fermentation will never take place, under any circumstances, while the skin of the fruit remains unbroken. You may hang a bunch of Ives's seedling (a grape with a thick, tough skin), in a warm place, and it will remain there unchanged until dried, but squeeze out the juice and leave it exposed to the air, and it soon undergoes the alcoholic fermentation, which at 70° and upwards, Fahr., quickly passes into the acetous.

This theory makes it difficult to conjecture how disease germs do get into the animal flüids, for if the capillaries of the lungs are closed to them, those of the stomach ought to be, and it would seem that there could be, in that case, but one possible avenue of approach left them, namely, absorption with the chyle by the lacteals.

If this is really the case, it furnishes a possible explanation of the puzzling fact of exemption from contagious diseases, and the more puzzling fact of non-receptivity at one exposure, and receptivity at another.

The possible explanation is this: The germs may be killed by the acids, in their passage through the stomach, and digested by the gastric juice, at one time, and none reach the lacteals, while at another time some might survive the dangers of the passage and get into the lymph in a viable condition.

However this may be, neither its truth or falsity argues anything in favor of the idea, that in the mode of its communication, typhoid fever differs from the exanthems.

We must then conclude, in the present state of our knowledge on the subject, that it is premature to assert, as Prof. Dunster is reported to have done, "that the poison of typhoid fever is not properly an atmospheric poison, and can only be communicated by contact with the excretions of typhoid fever patients." This statement needs some explanation. If contact with the external integument is the kind of contact meant, how does the poison get through the skin and into the blood, and what kind of a poison does the professor consider it to be? If contact with the membrane, lining the digestive canal, is meant, what can the poison be called except atmospheric? Atmospheric can only mean a state of suspension in the atmosphere, and, as already remarked, disease germs must often reach the mucous membrane by inhalation, and by means of food and drink into which they have been carried by the atmosphere; and that such is the general rule, seems evident, for no one is apt to lick his fingers after contact with the excretions of sick people, or mix such secretions with his dietary.

A moment's reflection will satisfy us that it is impossible to keep the germs from getting into the atmosphere, for the reason that the excrements of the sick are often thrown on the ground, where they are dried by the sun and blown away by the wind. No doubt the fate of the vast majority of these is to be hunted to their death by the scavenger of the atmosphere, ozone ; but this, unfortunately, is not always present when needed to do its benificent work. At the same time and place that Prof. Dunster made the remark above quoted and commented on, Prof. Palmer said: "He believed typhoid fever, whether communicated or not, was constantly originating, *de novo*, especially from filth, and perhaps from other causes. * * * * * A poison capable of producing typhoid fever is no doubt produced in foul privies. He believed the disease depended on a peculiar poison, generated in filth. * * * * * But he did not believe that all, or a majority of typhoid fevers, were communicated from one person to another, by fæces or otherwise."

These remarks are susceptible of two distinct meanings. Interpreted in one way, they place the Professor in antagonism to the modern doctrine, that microphytes are the cause of typhoid fever, and make him consider the poison generated* in the "filth and foul privies," as a chemical product, for if it be a microfungoid, a veritable *formum vivum*, it could not be generated in filth, although it might possibly be reproduced in it, if its spores were first planted there. Interpreted in the other way, Prof. Palmer's remarks distinctly commit him to the doctrine of archebiosis, for if the poison be not a chemical product, but a microphyte, then "the beginning of life" was in the filth and foul privies.**

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*I am not aware that Prof. Palmer has ever defined his position on spontaneous generation, but remember hearing his address to the State Society at Saginaw and thinking it leaned that way.

**If the word "generated" is used as synonymous with "reproduced," it would essentially change the meaning of the above, and leave nothing to argue about, but it is obviously not so used.

What the "other causes," capable of originating the typhoid fever poison are, besides filth, the Professor does not say, but I should be very glad to hear.

Before dismissing my second proposition, it would be well to observe as my profound conviction, that although we do not know how typhoid fever makes its attack on its victim (and the same can be said of every other zymosis), that we are warranted in believing that no defective drainage, no overcrowding, no want of ventilation, nor all these influences combined and assisted by "filth" in its worst imaginable forms, ever originated a case of typhoid fever. These influences might cause death in other ways, as by poisoning by carbon dioxide, or by sulphhydric acid, or other unthought-of methods, but never by typhoid fever.

Careful plowing and harrowing, plenty of manures and fertilizers, frequent stirring of the ground, a proper amount of heat and moisture, are excellent aids in the growth of a good corn crop, and we say of them that they make corn grow, but all of them combined never made a hill of corn grow in a place where no seed was planted. So of the unsanitary conditions spoken of above with respect to typhoid fever, doubtless they accelerate its growth and fearfully increase its ravages, if the fever seed has been sown. We harvest such as we plant. If we plant fever we harvest fever.

With regard to my third reason: It is no proof of the non-contagious nature of typhoid fever that among those apparently exposed to it, those who take it are the exception and not the rule. It is more or less true of every contagious disease, that there are those who enjoy immunity from it. This immunity is least in small pox, and perhaps greatest in typhoid fever. The greater this immunity is, the more the contagious nature of the disease will be marked by any notorious lack of sanitary conditions which happen to exist at the time an epidemic breaks out, and which, I am sorry to say, can generally be found, and which, if an epidemic were not prevailing, would pass nearly unnoticed.

I will illustrate this by a reminiscence of an epidemic of typhoid fever as remarkable and more extensive than the one investigated by Prof. Palmer at the Maplewood Institute, and in which the gigantic proportions of the apparent cause completely hid the contagious nature of the malady from the eyes of the physicians as well as from those of the community.

Lapeer county began to be settled about 1832, and till '46 there had been no typhoid fever within its limits,—perhaps not one case. Late in the fall of that year it broke out with great violence in the village of Almont, and spread into the neighboring townships. It was commonly spoken of as the "potato fever," and was so called because the disease was believed to have been caused by an immense heap of rotten potatoes in the south part of the village. These potatoes had been bought by a company of Eastern capitalists, for the purpose of making starch from them. Twenty-five thousand bushels had been delivered, and the manufacture had just commenced when it was discovered that the potatoes were rotting.

Efforts were made to pick over the heaps and go on with the work, but the rot made such progress that the attempt was soon relinquished in despair; and the whole rotting mass was thrown out of doors and left, a huge heap of putrescence, just outside of the mill.

The smell was intensely disgusting, and in the direction of the wind could be plainly perceived from one to two miles. The fever made its appearance simultaneously with the rot, the first fatal case being one of the employees of the mill, and spread rapidly over the village. Almont was at that time a village of 700 or 800 inhabitants, and was the trade center of a large section of country. Before winter was gone the pestilence had attacked half or more of the families in the village, and had spread to many localities in the country. In one little neighborhood there were six fatal cases in a radius of a mile. The fever was typically typhoid; every symptom was diagnostic. Hemorrhage from the bowels was a common thing; and the red tongue, the fatuous countenance, the low muttering delirium, the coma vigil, the sordid teeth, the ochrey diarrhœa, and the tympanitic abdomen were marked in almost every case, and during convalescence the falling of the hair and scattered abscesses.

There lived at that time in Almont two practitioners of medicine, Frederick W. Bailey, a man verging on 40, and a resident of the place since its first settlement, and Oliver P. Strobridge, about ten years his junior, and located there a year. Both were men of more than ordinary culture and talent, but both, in common with the community, believed that the potatoes were the cause of the fever, and overlooked its contagious nature.

Many were the discussions which the writer (then only a few months in practice, and several years younger than either) listened to between these two gentlemen relative to the fever, and it was invariably treated as a demonstrated fact that the potatoes were its cause.*

It was not from lack of evidence that the contagious nature of this disease was not recognized. This evidence was overwhelming. It was well known that the disease was carried from place to place, but that heap of potatoes appealed so strongly to more senses than one, that it was thought to be its (the potato heap's) miasm that was carried.

Among the worst sufferers was a family named Kidder, none escaping the fever, and all but one being cases of severity. From that family the seeds of disease and death were scattered in various directions and to distances of from four to ten, and in one and the worst instance, to twenty miles, A boy living in the family, being taken sick, could not be cared for there, and was carried the last mentioned distance to his own home. He recovered, but his father and mother and seven brothers and sisters, all took the fever from him and died.

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*At one of these, the writer, in whose mind there was a lingering suspicion that this was not proved, timidly ventured a hint to this effect. This elicited some vigorous objurgations from Strobridge, who was provoked that the writer "should be so superfluous as to demand a reason," while such a palpable one as that heap of decaying potatoes was in sight. The heretic was glad to recant, and thereafter swear by the potato heap himself.

Bailey died a few months since at Nashville, Tenn., where he settled a few months after the war, during which he was a surgeon in an Illinois regiment. To the last day of his life he believed that the emanations of the rotten potatoes were the cause of the fever. There is a notice of this fever in an article from his pen, in the January number, 1875, of the Detroit Review. Whoever reads it will observe that he does not once use the word contagion. He mentions frequently "the local cause," and where he speaks of its transportation his meaning always is transportation of the poison from the decaying potatoes. The source of the infection, it should be added, was the neighboring village of Romeo, and was carried to Almont by families moving from the former place, where it had made its appearance several months before. Instead of being cause and effect, the potato rot and fever were merely synchronous.

Such cases as the above look to us like proof of a contagion reproduced in the systems of the infected; but thirty years ago they taught no such lesson. It required some courage, then, in a man to say that he believed in contagion in fever. When Louis declared that such was his belief, a contemporary remarked that "his frankness did him honor."

The animus of this remark, is a sentiment of wonder that such a man could entertain such a vagary, something as we would feel toward an honest convert to Mohammedanism among our neighbors.

In explanation of this attitude of incredulity, it must be remembered, that the vicious reasoning (which the world has not yet entirely outgrown) that argues that a disease cannot be contagious of which the source of the infection cannot readily be discovered, had immensely more weight thirty years ago than now, from the fact that the modern doctrine of fermentation in disease was yet in the future.

Leaving the reader to decide whether the three points contended for have been sustained, this paper will conclude with a reference to the treatment of typhoid fever.

With the exception of that for complications, which will vary with individual cases, the writer believes in no medication or treatment which will not meet one of these indications:

(*a.*) Decrease the heat. and for this he has had no experience in the anti-pyritic use of quinine, but endorses that of water, by frequent sponging;

(*b.*) Conserve the strength, and for this purpose believes in alimentation, but does not think alcoholics good food early in the disease;

(*c.*) Kill the microphyte, and for this recommends to the profession a trial of the nitrate of silver, as an internal germicide, in doses of one eighth of a grain every four hours. The writer believes that this salt has done good in typhoid fever, in his hands, but admits that he cannot prove it was not by keeping him from more active medication.

The Causes of Phthisis Pulmonalis.

PAPER READ BEFORE THE DETROIT ACADEMY OF MEDICINE BY
LEARTUS CONNOR, A. M., M. D.

Without exact definition, I shall in this discussion use the terms Phthisis and Consumption in their general and ordinary signification. They include several distinct diseases; but the causes of these are much the same and are most appropriately considered together.

'Tis an old proverb "that long-continued familiarity breeds indifference." The more startling, terrible and frequently repeated the fact, the more blunted are the sensibilities. In no other way can we explain the comparative apathy to the ravages of consumption.

If a pestilence before unknown should pass over the civilized part of the temperate zone during the year 1877, and number among its victims one in every ten of all deaths from all causes, millions of hearts would quake from anxiety and fear; industrial and commercial activities would be checked; while all who were able would flee the accursed zone. Yet it is believed that one-tenth of all deaths in the temperate zone are caused by consumption. The proportion varies in different localities. Thus, of the different States and territories in the United States the proportion of deaths is highest in Maine—being, for 1860, one to every 3.57. It is lowest in Arizona—being one for every 50. The other States and territories vary between these two extremes. In Michigan, one-eighth of all deaths during 1869–70 was due to consumption.

Once brought fairly to our consciousness these are startling facts—most suggestive to us as physicians and men. Is it true that our chances of dying from consumption are one to eight? Will one in eight of all our kinsfolk, friends and acquaintances be cut down by the sickle of consumption? The answer to these questions is, we believe, recorded in the saying from an old Greek book: "As ye sow, so shall ye also reap." In short, persons will die of consumption who are subjected to the causes and conditions which produce consumption. Our present object is to review some of these causes and conditions by the light of ancient and modern investigation. If from this we shall see how very imperfect is our knowledge in this direction and are stimulated to individual observation, I shall be content.

For convenience, we will divide all the causes of consumption into two great classes. (1) Constitutional. (2) Local. The first tends to produce an abnormal state of the body; the second to excite a local irritation of the pulmonary organs. Both are followed by the disease called Phthisis. Believing that the constitutional causes are the most important, we shall consider them at some length, only speaking of the local causes incidentally.

(1) Does hereditary influence cause or promote consumption?

Of one thousand cases collected by Dr. Cotton at the Consumptive Hospital, London, 36 per cent. were hereditary. From 5,627 histories Dr Pollock was able in 30.16 per cent. of the cases to trace the disease to hereditary influences. Neither of these observers clearly tell us whether the parents of the cases were consumptives or debilitated from some other cause. We suppose that the ordinary mode of speaking was followed, and that the ancestral stock was depraved by phthisis.

Walsh, in 162 cases, found that 26 per cent. had a tubercular parentage. It will be observed that these statistics were taken from hospital practice, and are open to criticism. Analysis of cases in private practice would be more satisfactory. But I have been unable to find any such analysis of any considerable number of cases, or even to collect a large number of well-observed cases to analyze. Isolated cases are recorded, and are known to all practitioners of experience, in which a distinct hereditary influence is clearly seen in certain families. Dr. Flint records the following striking illustrations:

"All the children of a family, seven in number, were victims of consumption in five years, the ages being between 18 and 23. The mother died of the disease shortly before the death of the first child, and the father was a man of robust health."

Medical opinion almost unanimously affirms that consumption is caused or promoted by hereditary influences. Dr. Bowditch tells us that all but one out of 206 correspondents emphatically asserted the great importance of such in fluences This evidence is specially significant from the fact that it comes from physicians who see families born, grow up and die under their own care. I cannot forbear quoting briefly some of the replies to Dr. Bowditch's inquiries.

One writes: "I do not remember to have seen a well marked case of consumption where I could not trace the taint in the ancestry of the patient." Another says: "I can point out several families in which I have been able to trace consumption through three generations." Another: "My observation leads me to believe that consumption is hereditary —that this tendency is the predisposing cause; but I do not believe that this cause of itself is sufficient to produce a fatal result in nearly all who have this cause operating in the system at birth. The tendency may remain dormant during life unless other conditions favorable to the disease should arise."

Pollock says "that in the absence of more accurate knowledge than science yet possesses we are inclined to refer the actual precipitation of the disease phthisis to the influence of hereditary predisposition acting in conjunction with, or occasionally in the absence of, all or any of the other remote agents. If to one or more of these conditions we add that of inherited tendency, few escape. The modifications on which depend its rapidity, development and duration are distinctly seen in families."

Dr. C. F. Williams concludes an admirable study of this subject as follows: (1) "Family predisposition occurs more commonly among, and exercises a more decided influence on, females than males. (2) Fathers transmit more frequently to sons and mothers to daughters than the converse. (3) Family predisposition precipitates the onset of the disease, and thus shortens life."

What is this hereditary influence in the existence of which physicians so universally believe? None pretend to give an exact, definite answer. Some state that it is a *specific diathesis*, others that it is merely a *general debility*, which may be present in the offspring of parents in bad health from any cause. From all the evidence presented on both sides and our own observations we are inclined to accept the latter view as the true one and of the greatest practical importance.

Thus, from an impartial examination of statistics, as collected in hospitals, of isolated cases and of the combined testimony of many careful and reliable observers we conclude that in a large number of cases consumption can be traced to *diseased ancestry*. Facts show that *parents gravely debilitated*, from *any cause*, as disease, age, debauchery, etc., are *likely to have consumptive children*.

This is a startling conclusion, and one which should be pondered by every parent and every person considering the subject of marriage. Looked at from the physical standpoint, debilitated persons should never become parents, and the married should be especially careful that while propagating the race they be perfectly healthy. If the same care and common sense that is employed in improving the breeds of horses, cows, etc., were expended on the human species, a beginning would be made toward stamping out consumption.

(2) Race is closely allied to hereditary influence in the production of phthisis. We have found but few reliable statistical facts bearing on this point alone. It is stated in a general way by writers that, in the colder parts of the temperate zone, negroes and creoles are peculiarly liable to phthisis. My own limited observation confirms this view. Further, when once attacked by phthisis, these races speedily succumb.

Morton, Nott and Rufz tell us that phthisis is a common disease among the blacks in the West Indies, and that by it large numbers of creoles perish.

From facts collected by Bowditch it would appear that in Boston, at least, the Jews suffer great immunity from consumption. A Rabbi, after careful investigation, ascertained that there were at least 5,000 Jews in Boston. Of these only eight had died of consumption during the last five years. Dr. A. Haskins states that, as physician to Jewish societies, he has cared for sixty Jewish families during two and a half years, averaging among them two visits daily. During these visits he had met but one case of consumption. In a large private practice among the Jews for the same period he had met only two cases of phthisis. These statements seem entirely trustworthy, and indicate that consumption is less frequent among Jews than among Christians.

(3) Age.—Deaths from consumption occur at all ages, but, as we shall see, they are most frequent during the periods of greatest functional activity. The researches of Boyle, Louis and Sir James Clark throw considerable light upon the exact age at which most die. From these we learn that the greatest number die between the ages of 20 and 30; the next greatest between 30 and 40; the next greatest between 40 and 50. The number of deaths between 50 and 60 about equals that between 15 and 20. Between infancy and puberty phthisis is fearfully common. Dr. Passavoine tells us that, out of 920 children observed by him who died between the ages of 2 and 15, no less than 538—nearly three-fourths of the whole number—died of phthisis.

(4) Occupation.—From an analysis of six hundred and seventy cases recorded by himself, Dr. Flint says "that the varied occupations of life favor the production of phthisis, in so far as they involve *confinement within doors* and *sedentary habits.*" In these statistics and those of several other observers amounting to some eight thousand cases, we are especially struck with the fact that the greatest number belonging to one trade was composed of clerks and shopmen. Dr. Knight, of Sheffield, says that the dry grinders die of phthisis before they are thirty-two. This observation is abundantly confirmed by physicians who treat the operatives in American cutlery establishments. That this result is largely due to irritation, etc., produced in breathing air filled with fine particles of dust, we have clear proof. Thus, the operatives who grind over wet stones, from which there can be no fine dust, suffer in no marked degree from their occupation.

The proportion of consumptives is large in all those trades that require a stooping posture—as tailors, bootmakers and weavers—which, by mechanical hindrance to the free entrance of air into the lungs, restrict the expansion of the chest walls and result in imperfect performance of respiration. This interferes with the proper nutrition of pulmonary tissue and general lowered vitality of the system.

In this connection I quote from "Punch" a parody on Mrs. Hemans' "Homes of England:"

"The cottage homes of England,
How beautiful they stand
(So once Felicia Hemans sang)
Throughout the lovely land!

* * * * *

The cottage homes of England,
Alas! how strong they smell.
There's fever in the cess-pool
And sewerage in the well.

The cottage homes of England,
Where each crammed sleeping place
Foul air distils, whose poison kills
Health, modesty and grace.

Who stables horse or houseth kine
As these poor peasants lie—
More thickly in the straw than swine
Are herded in a sty?"

The spirit or essential truths forming the basis of this parody is not inapplicable to millions of homes and workshops in our own land. The personal habits, as manifested in the average house or workshop, are far from conducive to health or happiness. We have not space to pursue this matter further.

A majority of the leading minds in our profession believe that our system of education at school and college really tends to the production of consumption. Bad hygienic conditions doubtless have much to do with this result. But some of our keenest observers declare that the violent stimulus placed upon scholars by approaching examinations for rank and prizes, or exhibitions, is not seldom, after the extra labor, followed by entire prostration, ending in phthisis.

Dr. Flint says "that among those whose work may be distinguished as *brain craft* they who suffer from the mental causes of disease are not the close students, the industrious authors and the laborious lawyers, clergymen and physicians in so large a proportion as men of business, speculators and politicians. It is not the amount of intellectual work so much as the constant tension from anxiety and suspense, the alternations of undue exaltation and despondency occasioned by the so-called caprices of fortune and persistent over-excitement which constitutes the morbific agencies of mental origin."

The researches of Bowditch show that three-fourths of the profession believe "that the people of this country are overworked;" and, with still greater emphasis, they might have added that we are *overworried* and *overfretted.* We suspect that this latter element far more than *honest work* is the fatal poison of our activities. The observer just mentioned gives his own views thus: "We have no large vacations; no pastimes; we give no rest to ourselves or employees. The struggles for life are so great and the "*accursed love for gold,*" the nature of our political institutions, our stimulating climate, all urge us to work and overwork. Even in our parties during the winter, and at gay watering places during the summer, there is no rest. The "*dance of death*" goes gaily round all the time, whether we work or play."

(5) Personal *habits* have an insidious power in producing phthisis. I can find no evidence to show that intemperance in alcoholic drinks tends to produce phthisis in the drinker. In truth, the reverse of this is very clearly shown by a variety of facts, which will be referred to at another time. But, if the drunkard suffers an immunity, his family is often reduced to such want and squalor as to render them easy victims of this disease.

Excessive sexual indulgence, according to a majority of New England physicians, is a cause of consumption. I was especially impressed with the evidence presented, and am sure that it will aid in elucidating some cases otherwise obscure in their etiology and course.

The want of physical and mental exercise is doubtless a prolific source of phthisis. Good blood cannot be made without exercise, even when every other condition is supplied. Physical exercise to weariness, but not exhaustion, is an essential condition of the formation of the best blood and the best protoplasm. With these constantly present there can be no consumption.

(6) Diet, insufficient in quantity or deficient in quality, is generally said to have a powerful influence in producing that malnutrition which precedes and accompanies phthisis.

Lombard, from an examination of the records of 54,572 histories of consumptive cases and 4,300 deaths, involving 220 different occupations, found that, other things being equal, the *poorest fed* classes were *twice* as liable to *phthisis* as those better fed.

Dobell and others have laid great emphasis on the *deficiency* of *fat* in the system as a cause of phthisis. It is certain that fat or fatty food is especially repulsive to consumptives. Dobell says that this is due to a disturbance in the secretion of the pancreas, so that only small amounts of fat can be digested. We cannot now enter into a discussion of the different articles of diet and their relation to normal nutrition, nor can we take up those disturbances of digestion which, at least, accompany every case of phthisis. It has been suggested that the comparative immunity of the Jews from consumption was due to their eating so little pork. Instances, well observed, are recorded in which pork diet seemed almost the sole cause of phthisis. 'Tis well known that, of all meats, pork digests with the greatest difficulty. The method by which it is most frequently cooked—frying—renders it still more indigestible. Hence, it is not surprising that digestion, primary and secondary assimilation, are perverted in some who depend upon it for subsistence. Should such have an hereditary tendency to phthisis, it is easy to see how this perversion of supplies might fully develop the disease. All pastries and other *grease-soaked* *dishes* fall under the same head and tend to produce the same results.

Badly-cooked food, bolted, half-chewed food, even more than kind or quality, are a condition for, if not a cause of, consumption. If women and men really desire to check the devastating ravages of consumption. they can do inestimable service by seeing that *abundance of fresh, nutritious, palatable* and *well-cooked food* is provided for those under their charge. I think we may safely affirm that none will die of consumption, or even be attacked, who *eat* and *digest three good square meals each day.* The proportion of saccharine, starchy, oleaginous and nitrogenous elements entering into a proper diet will vary with climate, season, age, occupation, etc. But some of each should be taken at every meal.

(7) Respiration is best performed when the air is pure and exercise sufficient to produce a free circulation of blood through every part of the lungs, in particular, and the body in general.

Lombard says "that in all pursuits involving a sedentary life, with a confined position of the body, the prevalence of phthisis will be in proportion to the greater or less amount of muscular exercise required by each occupation. The lack of exercise and bad air are the causes of consumption, rather than the special and local influences to which it is usually attributed." The same observer found that the deaths from phthisis, in workshops, were double those in the open air, and that the proportion increased as the apartments were close, narrow, and imperfectly ventilated.

A large number of facts show that not every impure atmosphere will induce consumption. Thus the sewer cleaners of Paris are singularly free from it. Colliers and miners are not more liable than others to phthisis.

But air vitiated by human respiration increases greatly this liability. Baudelocque, Carmichael, Lepelletier, Leil, Arnott, Toynbee, Guy, Greenhow, and others, furnish a large amount of evidence on this point. Guy says "that of 109 compositors who worked in rooms of less than 500 cubic feet for each person, 12.50 per cent. had phthisis; of 115 in rooms having from 500 to 600 cubic feet, 4.35 per cent. had phthisis; and 101 in rooms of more than 600 feet, 1.98 per cent. had phthisis."

Parkes states "that in a prison at Vienna, very badly ventilated for a certain number of years, 51.4 per 1,000 died of phthisis; while during the same period, in the same city, at the well-ventilated house of correction, the deaths from phthisis were only 9.7 per 1,000. The Sanitary Commission of the British Army, after the fullest investigation and assigning all probable influence to exposure on duty, intemperance, syphilis, and faulty diet, states that the extraordinary frequency of phthisis in the European armies can only be accounted for by supposing the *vitiated air* of the *barrack room* to be at *fault.* The disease prevailed at the most varied stations of the army, in which there was but *one* common condition, *impure air* in the *barrack room.* To make the argument still stronger, of late years there has been a decided decline in phthisis in those stations in which the *only change* has been a *better* condition of the *air.* MacCormac carries this doctrine so far as to make rebreathed air the almost exclusive cause of phthisis. Thus he says, "whenever the air, habitually respired, has been largely, or wholly, respired before, these tubercular deposits are found."

Facts collected by Hirsch, prove that in foundling hospitals, orphan asylums, boarding schools, factories, and like institutions, the air poisoned by animal effluvia is in the highest degree favorable to the development of phthisis. This is true in those cases in which there is the greatest cleanliness, good food, warm clothing, and all the other conditions of healthy life.

We have already presented facts showing that lack of general muscular exercise is one cause of consumption. Further statistics show that those who use their vocal and respiratory organs most are less liable than others to phthisis. It is quite clear that the reason why tubercular deposits first take place in the apices of the lungs, is that from their anatomical relations, these are less exercised than other parts of the lungs.

The pernicious effect of *rebreathed air* and lack of *exercise* is well illustrated by the comparison of wild with domesticated animals. The latter is far more liable to phthisis than the former.

'The stabled cow, the penned sheep, the tame rabbit, the monkey, the caged lion, tiger or elephant, are often destroyed by phthisis."

(7) Mental influences, says Laennec, are most certain causes of phthisis. On the power of melancholy, he gives the following striking illustration: " For ten years I had under my eyes, in Paris, a nunnery whose rules were very severe. The alimentary regimen of the nuns was not beyond the bounds of nature, but the spirit in the rules of the nunnery directed the mind to the most terrible, rather than the consoling, truths of religion, and compelled the inmates to resign themselves in everything to the will of the abbess. After about two months sojourn in this house the menses became suppressed, and in a month or two afterwards symptoms of phthisis appeared. Those who at this time left the house recovered. But of those who remained, all died except the superior and the sisters who had such duties in the kitchen, garden, infirmary, or city, as to distract their minds from such gloomy thoughts. During the ten years that I was physician to this establishment the numbers died off twice or thrice."

Seventy-two per cent. of all Bowditch's correspondents affirmed that consumption was caused by mental influences. More and more the profession is approaching the belief in such a unity of mind and body that one cannot be disordered without affecting the other, that a diseased body will cause a diseased mind, and a diseased mind a diseased body—that mental trouble, even of the briefest duration, must cause an unhealthy mind. This, in turn, must interfere with the laws of physical health—so lower the vital powers and tend to the production of phthisis.

(9) Various classes of disease may produce in persons, free from every other cause, a decided tendency to phthisis.

This is true of many affections of the alimentary canal—of diabetes mellitus, chlorosis, tertiary syphilis, various fevers, miss-carriages, prolonged lactations, etc.

On the other hand, certain diseases tend to check the tendency to phthisis. It rarely occurs in cases of emphysema, or in cases of cardiac lesions, which leave the lungs engorged with blood. This pulmonary engorgement seems to be an antidote to the disease. That ordinary pneumonia, pleurisy, bronchitis or pharyngitis tend to terminate in consumption, I can find no adequate proof. I am aware that this is disputed ground, but on anatomical, physiological, pathological or clinical grounds, I cannot accept the teaching of Niemeyer on this point. Limited space prevents a discussion of the question here and now. All the statistics I have been able to collect point unmistakably to the conclusion, that phthisis is no more frequent in individuals liable to bronchitis,catarrh, pleurisy and pneumonia, than in those who have no such liability. In short, if a person having no other cause of phthisis be attacked by one of the above diseases, there will be no reason to either expect or fear consumption, as a sequel. In fact, physicians do not expect such a result, because contrary to experience.

(10) Is consumption ever caused by contagion? Aristotle, writing 340, B. C., speaks of it as contagious. Galen, 130, A. D., states that it is dangerous to pass an entire day with a consumptive. Lomnius, 1560, thought the sputa contagious. Morton, 1610, asserts that consumption is as contagious to a bed-fellow as malignant fever. Revirius, 1650, says that contagion is the chief cause of consumption. Morgagni, 1760, would not dissect subjects who had died of phthisis, for fear of infection. Cullen, 1777, states that he had never known a case from contagion. Thence the idea faded out till within the past 20 years. During this time it has had a varied fortune. The Italians are most positive in their belief in the contagiousness of phthisis

The English and Germans generally reject this belief.

Dr. Cotton states that during his connection with the consumptive hospital of London, since 1846, only one of all the employed in or about the hospital has had phthisis. That the disease has been developed in widows and widowers, so as to favor the doctrine of contagion, he admits. But he thinks these facts may be better explained in one or two ways. First, he adduces the fact, that husband and wife often come to resemble one another by virtue of some peculiar physiological relation. Why may they not come to resemble each other in their *lingering* *constitutional diseases?* Second, a phthisical husband may taint his wife, through fœtus in utero?

Dr. Webber made the statement before the Clinical Society of London, that he had the histories of twenty-nine marriages between women with more or less marked signs of consumption and healthy men, and of fifty one marriages of tainted men with healthy women. While only one husband from the twenty-nine who married diseased wives became consumptive, eighteen of of the fifty-one healthy women married to diseased husbands, died of consumption. The eighteen women were the wives of nine husbands, one of whom lost four wives, one three, four two, and three one each.

On the other hand, Dr. Budd holds that dried sputa contain particles of the real contagium of this disease, and that they may be floating around in every atmosphere in which a consumptive lives. Thus it will be seen, that after a study of more than two thousand years, the question is still unsettled. Meantime it is wise to prevent, if possible, a well person from sleeping with, or in the same room, with a consumptive.

(11) The infection of phthisis is of intense interest, and has been extensively studied. It has been repeatedly demonstrated that the inoculation of certain animals with tuberculous or other foreign matters, is always followed by symptoms and lesions apparently similar to those of true phthisis. Further, 'tis well known that deposits of pus or chronic indurations in one part of the body may be, and often are, followed by phthisis. In explanation of this fact, it is said that the broken down, purulent matter is absorbed, and in passing through the capillary circulation, excites those changes which end in phthisis. Many of our most brilliant pathologists say that in this way tubercle is usually formed. That phthisis is sometimes produced in this way, all must admit. By the admission, we can explain many curious facts. Thus it is a matter of clinical observation, that the stopping of running sores, fistulas, etc., is frequently followed by phthisis. We now understand that the poisonous matter and badly organized corpuscles which escaped from the body through the sore are retained in the circulation, and bring about the observed morbid changes.

(12.) The influence of *climate* in the production of consumption is undoubtedly great. But the question is at once asked, what is the climate that exerts the greatest power in this disease? The term, climate, is very complex in its elements, including soil, air, temperature, elevation, sunlight, electrical condition, etc. Dr. Bowditch first established the fact that in those localities where consumption prevailed most frightfully, *dampness* was the characteristic of *soil* and *air*. In those localities which were comparatively free from consumption, *dryness* was a *characteristic* of soil and air.

Of the other elements of a consumptive climate he does not speak. Eighty per cent. of his correspondents believed that consumption is both caused and promoted by climate. One, a physician of eminence, uses the following language: "My own conviction has been for many years that consumption loves a moist locality and a dark dwelling. I have noticed that houses built upon a dry subsoil, and so constructed that they admit the sun freely, are generally free from consumption. A dry locality, with plenty of sunshine, warm clothing, and plenty of food, will never breed phthisis. With these, even though persons be predisposed, one can keep the disease at bay, and live to a good old age."

A high latitude seems to protect from phthisis. After fifteen years of observation, Jaccoud says that tuberculosis is almost unknown in Alpine districts above 4,000 feet The inhabitants of Iceland are said to be entirely free from this disease. Experience has shown that although the barometric pressure was lessened by elevation, hæmorrhage from diseased lungs is not increased. Toner has shown that "those states presenting the lowest elevations and the greatest area of ponds, lakes, rivers, and wet lands to their whole area, have the largest number of deaths from phthisis." Coolidge, in his report on the sickness of the army, says that the reports from the line of posts stretching from the upper Platte through New Mexico, to the Rio Grande, give a smaller proportion to pulmonary phthisis than the reports from any other posts in the United States. The air in this region is almost devoid of moisture—there are few sudden changes - the depressing heats of eastern summers are never felt, and although in the north winter is extremely cold, a stimulant and tonic effect is the only result of exposure in the open air." We do not think, in view of the facts presented, that we can insist too strongly upon the fact that *damp soil* and *damp air*, especially if loaded with emanations from decaying animal or vegetable matter, is *one well established cause* of consumption. Sudden changes of temperature and barometric pressure—bad enough in themselves—greatly increase the ill effects of dampness.

The effects of sunlight have not been studied with sufficient care to enable us to make any accurate statements, yet we are sure that the absence of the sun's rays is no insignificant cause of phthisis. Of electricity and magnetism in their relations to the human organism we are just beginning to learn.

Thus, in a very imperfect manner, we have passed in review some of the causes or conditions of consumption. The exact part each shall take in any given case must be ascertained by the medical attendant. It does not seem presumptuous to expect that with our advancing knowledge respecting these causes and conditions, we shall be able to detect the disease ere it has destroyed the functional power of any tissue, and, by removing the cause, cure the disease.*

Report on Physiology.

READ BEFORE DETROIT MEDICAL AND LIBRARY ASSOCIATION,
BY DR. J. G. JOHNSON, DETROIT, MICH.

GENTLEMEN:—By the terms of the constitution of this society, it becomes my duty, at this time, to present to you a *resume* of the advance made during the past year, in physiology, pathology, microscopy and chemistry. These are the most extensive and difficult subjects connected with our profession, and to take stock of the real, genuine progress made in a year is no easy matter. It is hard to say, in a given case, whether we have to do with facts which will stand the test of time, or with assumptions which will be disproved in the next journal.

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*For facts, etc., contained in this article I am indebted to the following publications: The Treatises on "Practice of Medicine," by Riverius, Cullen, Hoffman, Trousseau, Niemeyer, Watson, Flint, Bennett and Roberts; Report Mass State Board of Health, 1873; Vital Statistics, State of Mich., 1873; Works of Aristotle, Hippocrates, Celsus, and Galen; Louis on Phthisis; Toner's Dictionary of Elevations; Williams' Principles of Medicine; British Medical Journal; London Lancet; Edinburgh Med. Jour; Glasgow Med. Jour; Amer. Jour. Med. Sciences; Amer. Practitioner; Medical Record, and many other medical journals,

Hundreds of enthusiastic workers in England, Germany, France, Italy and Russia, as well as in our own country, are engaged in costly laboratories with microscope and test tube, ferreting out biological mysteries. Facts are in demand. Details and minutiæ are dwelt upon and magnified to an extent that only the hope of support for the theory of evolution would seem to commend.

The internal arrangements of the lower forms of animal life have acquired an importance which they have never hitherto enjoyed. This is probably as it should be, for it is reasonable to suppose that the higher forms of life can be best studied through the lower and simpler. One thing, however, is certain, that the vast mass of details which are accumulating have, as yet, rather an expectant than actual interest for the profession at large.

In physiology it is the nervous system which has received the most attention during the past year; but the positive results have been few. Numerous experiments have been made touching the question of the excitability of, and localized centres on, the cortex cerebri.

Some have confirmed, and others thrown doubt upon the conclusions of Fritch and Hitzig. Some of the later experimenters, while they confirm the facts as stated by them, ascribe the muscular contractions resulting from faridazation, to the conduction of the stimulus along the course of blood vessels, to centres at the base of the brain. Others, as Brown-Sequard and Claude Bernard, consider the results as simply reflex phenomena.

M. Bochefontaine, who has recently published in the "Gazette Medicale" the results of an extensive series of experiments upon dogs, is of the same opinion. He has discovered at least three points upon the cortex cerebri, which occasion, when stimulated by faradization, hypersecretion of the submaxillary gland, four points which cause contractions of the spleen, and six which cause contractions of the intestines, with simultaneous discharge of urine from the bladder.

Brown-Sequard maintains that there are no centres, properly speaking, in the hemispheres, but that the nerve cells, acting together, are distributed in different parts of the surface of those organs. They are connected, of course, and might be supposed to act together quite as well at the distance of several inches, as one inch.

In this connection, we might mention his explanation of those cases of hemiplegia where the lesion and paralysis are upon the same side. He would make them really reflex paralyses, just as might be produced by any peripheric source of irritation. He says, to quote his own words, at the conclusion of one of his lectures in London, last March, "that it is owing to an irritation that one-half of the brain is capable, when diseased, of producing paralysis either in the corresponding half the body or in the opposite one. He denies the explanation according to which there should be no decussation of the conducting motor fibres in those cases, for the reason that no anatomist has ever yet discovered any such absence of decussation in the cord.

The question of the existence of vaso-motor nerves has, of course, been settled some time ago; but their unity or duality, and their mode of action, is still agitated. A large number of physiologists, with Claude Bernard at their head, claim that the existence of dilator nerves is as well established as that of the constrictors.

There are many facts claimed as support for the duality of this system. Irritation of the isolated chorda tympani gives rise to hyperæmia of the point of the tongue, and the same procedure with the glosso-pharyngeal produces the same result in regard to its base. Again, it is well known that section of the fifth nerve, internal to the Casserian ganglion, is followed by impaired nutrition of the cornea and other parts of the eye, without any apparent degeneration of the nerve fibres. This is explained, according to the dualists, by supposing that in making the division of the nerve the vaso-dilators, which it contains, are also divided, leaving the constrictors uncounterbalanced, with, of course, a corresponding diminution of the vascularity of the part.

The nervi erizentes of Shiff are also used in support of these views. It is, however, very difficult to understand by what mechanism a blood vessel could be made to dilate by means of muscular fibres in its own walls.

The latest experiments upon the rapidity of the sensory current in man, by Bloch, give as a result for peripheric nerves, 434 feet per second, and for the spinal cord 638, figures materially differing from those given by Dalton in the last edition of his work.

An attempt has been made by physiologists, within the past few years, to establish the relations between the different kinds of food and their products in heat and labor.

To this end the production of urea and carbonic acid has been carefully studied, the one as expressing the consumption of nitrogenous elements, the other that of the non-nitrogenous. In the course of these studies a subject of considerable physiological importance has been, as it seems, definitely settled, and in a matter directly contrary to the views for a long time promulgated.

Pavy, from a series of very careful observations made upon the pedestrian Weston, concludes "that the amount of urea excreted corresponds to the general tissue change, and not to the amount of muscular exercise; also, that we work at the expense of our non-nitrogenous food, and not at the expense of the albuminous tissues. He thus confirms what had already been assumed as fact by the Germans. Traube maintained that doctrine some time ago, and based it upon the considerations:

(1) That even with a food which is poor in nitrogen, as vegetables, a considerable amount of mechanical work can be performed; the majority of the beasts of burden are herbiverous, and bees, though fed merely on honey, are continually in motion.

(2) That cold-blooded animals, and even animals and men

inhabiting hot zones, and whose heat production can only be very small, yet live, in a great part, on a vegetable dish containing but little nitrogen.

(3) That it has been directly ascertained that the albuminous bodies which are consumed in a given time, calculated by the amount of urea excreted, are not, by any means, capable of accounting for the work done during the same time, even when the heat of combustion of those bodies was calculated extravagantly high. He also mentions the well-known fact, that the inhabitants of mountainous districts prefer to carry fat and sugar as provisions when they have arduous journeys to perform.

The physiological action of alcohol has been extensively, not to say exhaustively, studied by Dr. Lauder Brunton and Prof. Binz, of Bonn, men of the very first authority in England and Germany, respectively. As their conclusions are substantially the same, we may be excused for giving them as summed up by Dr. Brunton :

"Alcohol, in small quantities, increases the secretion of gastric juice and the movements of the stomach and intestines, and thus aids digestion. Although unnecessary in health, it is useful in exhaustion and debility. It increases the force and frequency of the pulse, by acting reflexly through the nerves of the stomach.

In large doses, it impairs digestion by over-irritating the stomach.

It may produce death reflexly by shock. After absorption into the blood, it lessens the oxidizing power of the red blood corpuscles. This property renders it useful in reducing temperature. When constantly or very frequently present in the blood, it causes accumulation of fat, and fatty degeneration of organs. It undergoes combustion in the body, maintains or increases the body weight and prolongs life on an insufficient diet. It is, therefore, entitled to be reckoned a food. If large doses are taken, part of it is excreted unchanged. It dilates the blood vessels ; increases the force and frequency of the heart by its action on the nervous centres, to which it is conveyed by the blood ; imparts a feeling of comfort and facilitates bodily and mental labor. It does not give additional strength, but merely enables a man to draw upon his reserve energy. It may thus give assistance in a single effort, but not in prolonged exertions. The same is the case with the heart; but in disease alcohol frequently slows, instead of quickening, the pulsations of this organ, and thus economizes, instead of expending, its reserve energy. By dilating the vessels of the skin, alcohol warms the surface, at the expense of internal organs. It is thus injurious when taken during exposure to cold, but beneficial when taken after the exposure is over, as it tends to prevent congestion of internal organs.

The symptoms of intoxication are due to paralysis of the nervous system; the cerebrum and cerebellum being first affected, then the cord and lastly the medulla oblongata. It is through paralysis of the medulla that alcohol usually causes death.

The apparent immunity which drunken men enjoy from the usual effects of serious accidents is due to paralysis of the nervous mechanism, through which shock would be produced in a sober condition.

Binz claims for alcohol this advantage over cod liver oil in wasting diseases, that, although it has not the calorific power of the latter—that of alcohol being expressed by 7, while that of cod liver oil by 9.1—yet, in the form of a good wine, it is pleasant to the taste, is readily digested by the weakest stomach and is completely consumed in its passage through the system.

On the other hand, cod liver oil requires for its emulsion, absorption and assimilation a very considerable amount of labor, which is, of course, only that much more of a drain upon the powers of the patient.

In the past year the usual number of dogs have been sacrificed by being deprived of the healthful influence of their hepatic secretion, but still the functions of bile remain somewhat of a mystery. A fact of apparently considerable significance was mentioned in the June number of the "Detroit Review," taken from the Virginia "Medical Monthly" for March. Dr. E. C. Barrett reports the post mortem examination of a large dog, in which nothing remained of the liver but a fibrous network, similar to a piece of seine. It had died quite suddenly, without any apparent cause, as it had eaten well and thrived. There was no discoloration of the skin nor constipation; the food appeared to have been well digested; there was nothing to show any disease of any other organ, except an albuminous urine. Herman, in the last edition of his "Physiology," sums up the extent of our knowledge upon the uses of bile, as follows: "As animals with biliary fistulæ quickly grow lean, provided they are prevented from devouring the bile which escapes, it is supposed that the greater portion of the bile is reabsorbed from the intestines."

The ultimate destination of the reabsorbed biliary matters is, however, not known; nor have the other circumstances which help to explain the starvation of the animals, from which the biliary secretion is removed, been completely eliminated from the question. Moreover, in the normal condition, all the biliary substances are found in the feces in considerable quantities—the coloring matters which color the feces, bile acids, mucus, cholesterine, etc.

The bile acids, especially taurocholic acid, undergo, in the lower part of the intestinal tube, a hydrolytic decomposition; there being found in the feces, therefore, glycocholic acid, cholic acid and their anhydrides, choloidic acid and dyslisin. The reabsorption of the specific constituents of bile is, therefore, doubtful.

Unlike all other secretions connected with the digestive apparatus, bile is probably of no importance in digestion proper—that is, in the preparation of food for absorption. The one property it possesses which is of value for that purpose, that of emulsifying fats, is shared by it with other secretions which possess it in a far higher degree, as pancreatic, and, perhaps, intestinal juice. Solutions of peptones are precipitated by bile.

The importance of bile, physiologically appears to be chiefly in regard to the absorption of fats. Bile, and the salts of the bile acids, for instance, renders possible both filtration of fats through membranes under slight pressure and diffusion between fats and watery solutions, probably because it causes the simultaneous inhibition of both, in the form of soapy solutions. It renders *easier*, also, the *passage* of fats through narrow tubes.

Bile is said, also, to induce contraction of the muscular fibres of the villi of the intestines, and thus, again, to assist in the absorption of fats. It appears, moreover, to prevent decomposition of the contents of the intestines.

Drs. Felz and Ritter, of Nancy, have lately reported to the Academie des Sciences the results of some experiments with the constituents of bile. On injecting into the veins of animals small doses of a solution containing glycocholate and taurocholate of soda, in the same proportion as they exist in bile, bilious vomiting and diarrhœa were produced, together with a slow pulse, reduced temperature, and less frequent respiration, symptoms closely resembling slight attacks of jaundice. By way of explanation of these symptoms, they showed by experiment that the solution of biliary salts had a paralyzing influence upon muscular tissue; that they produced a diminished rate of flow through carillary tubes, and that in their presence the blood corpuscles underwent disintegration more pronounced according to strength of solution.

In pathology some valuable work has been done, and some valuable contributions made to the science.

Dr. Dreschfield, in the *Doctor* for May, concludes, from experiments upon animals, that in acute catarrhal pneumonia the first stage consists in an active proliferation of the epithelial cells lining the alveoli, which becomes detached from the walls of the alveoli, increase in size, become more granular, and show multiplication of their nuclei, thus giving rise to new cells.

(2) The capillaries in the neighborhood of the alveoli undergo an active hyperæmia, the white blood corpuscles accumulate in them, and eventually emigrate into the alveoli.

(3) The epithelium, after the process of proliferation is completed, undergoes fatty degeneration.

Prof. Kelsch, from careful microscopic measurement and study, concludes that in malarial fevers there is a diminution of the number of the cellular elements of the blood; that there is an augmentation in the size of the red corpuscles, and that there is a development of black pigment, which does not enter into the normal condition of the fluid.

Dr. Bannister, in the "Chicago Journal of Mental and Nervous Diseases" for January, submits the following as his idea of the pathology of tetanus; given—

(1) A peripheral wound, involving the sensitive nervous fibres, and causing an irritative local lesion—a neuritis.

(2) Transmission of this irritation, either merely as such or as actual inflammation, through the nerve trunk and the gray matter of the cord, to the medulla and pons, and possibly to the higher centres in the optic thalamus and corpora quadrigemina (striata), or, perhaps, even to the *cortical* motor centres of the brain.

(3) Reflection of this irritation along motor nerves, at first only the trigeminus and accessory, then gradually involving other spinal nerves, and producing tonic contraction of nearly all the muscles of the trunk. This is the condition, until death, in many cases of the disease, but in others convulsions appear at a late stage.

Death may occur from exhaustion, asphyxia, or paralysis of the heart.

In saying that an irritation is transmitted from a local injury through peripheric nerves through the spinal cord, and again through peripheric nerves to the contracted muscles, it seems to me that he simply enumerates the known nervous connection between parts, but does not actually explain anything.

Dr. H. B. Baker, in the "Detroit Review" of last month, congratulates Dr. Geo. P. Stevens, of Albany, N. Y., upon his discovery that chorea is due to anomalous refraction of the eyes of children. Their efforts at accommodation, for short distances, produce muscular tension, which, in its turn, gives rise to muscular exhaustion. He claims that chorea is due to the exhaustion of the muscles concerned in accommodation, and reports that of forty-one cases where that disease was associated with hypermetropia, hypermetropic astigmatism, myopic astigmatism, and unequal degrees of myopia. His views may, perhaps, better be taken, for the present, with a grain of salt.

Dr. W. H. Dickinson, in October, read before the Royal Medical and Surgical Society, a paper on the same subject—chorea. He gave the results of a careful study of the post mortem appearances in seven fatal cases. The changes were directly associated with vascular disturbance, allowing the sclerosis of the authors to be such.

The first step in the process seems to have been injection of the arteries, which is succeeded by extrusion of their contents. Both the brain and cord were affected, more especially the latter, and usually symmetrically.

He says the term "sclerosis" is misleading, since there was no induration, the change consisting in small, round or oval translucent spots about $\frac{1}{100}$ of an inch in diameter.

He concludes "that chorea is not in any way, either embolically or otherwise, a result of endocarditis, though often associated with it as having a common origin, rheumatism, while endocarditis was continually a result of chorea, set up, possibly, by the muscular irregularity of the heart, and the mitral regurgitation occasioned thereby. In conclusion, chorea was regarded as dependent upon a widely spread hyperæmia of the nervous centres, not due to any mechanical mischance, but produced by causes mainly of two kinds—one being the rheumatic condition, the other comprising various forms of irritation—mental and reflex—belonging mainly to the nervous system. The spots of perivascular change were scattered widely through that large region which lies inferiorly to the cerebral convolutions, the district of the motor and censory, as distinguished from the mental functions.

Dr. Rudolph Arndt contributes the results of post mortem examination in a series of fatal cases of sunstroke. He found in all the organs extreme distension of all the blood vessels above a certain calibre, while the finer ones were empty. The surface of the brain, liver and kidneys appeared blanched and swollen by imbibition of serum, or, perhaps, by an excessive formation of protoplasm rich in granules.

He particularly insists on the very high temperature of the body, and the consequent interference with all the vital functions, particularly the destructive metamorphosis of tissue, and the elimination of used up material. He points out that the blood is loaded with excreted material, that it has a black color, does not coagulate, and is rich in carbonate of ammonia. In conclusion, he would make the changes in the different organs due to a parenchymatous inflammation modified by the peculiar circumstances of the attack, and the special nature of the tissue.

Microscopy.—Dr. Klein published, in January last, the results of some of his researches into the lymphatic system of the lungs. They were undertaken under the auspices of the medical department of the British Privy Council, as an introduction to the more thorough study of the subject of pulmonary tuberculosis.

He demonstrates the existence of stomata upon the surface of the visceral pleura, opening directly into the subpleural lymphatic vessels. Through these, fluids in the pleural cavity can be removed in a short space of time, by the alternate expansion and contraction of the lungs. The bronchial tubes and the alveoli are surrounded by a net-work of lymphatic vessels opening upon their walls by irregular lacunæ, which he calls pseudo-stomata, partially filled by branched connective tissue corpuscles.

Dr. Creighton has published an important series of papers upon the physiological processes of involution and evolution of the mammary gland, and from their normal changes explains the histogenesis of pathological products from the epithelial cells of that gland.

To attempt to give an idea of his work would require more time than we wish to occupy.

J. Annaheim, from a series of experiments upon the weight of atoms, concludes that an atom of hydrogen can not possibly weigh more than the five hundred billionth of a gramme. We are glad Mr. Annaheim made these experiments, as it gives us a certain definite idea to place before our minds.

By way of conclusion to this rambling, disconnected paper, we would suggest that before the end of the next year the subjects be divided, so that there shall be a paper upon the advance in physiology and pathology, and another for chemistry and microscopy. As it is now there are too many topics embraced to admit of justice of discussion to any.

Abstracts from Virchow's Archives.

PREPARED FOR THE DETROIT MEDICAL JOURNAL, BY H. P. V. PETERSHAUSEN, A. M., M. D., PH. D.

I.—*On the Relations between Diseases of the Ear and of the Trifacial Nerve. (Prof. Moos, of Heidelberg, Vol. 68, Nov., 1876.)*

Certain diseases of the higher organs of sense are of a peculiar interest, as well to the pathologist as to the specialist. In a similar manner as some disturbances in the organs of sight are connected with tumors, embolic processes, Bright's disease, etc., a number of functional disturbances of the ear are dependent upon peculiar morbid affections.

Hitherto little attention was paid to those diseases of the ear which are combined with functional disturbances of the trifacial. The author divides the cases seen by him into two classes, viz.: Such as depend upon simple *cerebral disturbances*, and such as depend upon an *organic disease of the ear*, connected with functional disturbances of the trifacial.

The Dr. observed only four cases of the first class. Only the sensitive portion of the trifacial was affected in three cases, while its motor portion remained unaffected. The hyperæsthesia was sometimes very insignificant within the region of the nerve. During this stage there may, besides, be present certain disturbances in hearing, and increased sensibility to certain sounds and voices. In three of the cases there was anæsthesia of the trifacial; in the fourth case, in which complete deafness soon followed the hyperæsthesia, there was none. In three cases there were noticed subjective noises, which disappeared when complete deafness came on. This occurred in three cases pretty soon, and in two of them remained stationary during lifetime. Complete recovery took place only in one of the cases.

The seat of this disease must be that part of the medulla oblongata, where the deep roots of the auditory nerve arise, which are intimately connected with the sensitive fibres of the trifacial, in the medulla. As causes of this affection were found, extravasations and the so-called rheumatic neuroses. The prognosis is unfavorable in general.

In cases of the second class there may be the organic disease of the middle ear, and adjacent parts, preceded or accompanied, or sometimes followed, by disturbances of the trifacial. The nerve affection is always on the same side with the diseased ear. Only the first branch of the nerve is generally attacked. The intensity of the pain is sometimes considerable. The following affections of the ear were observed to be connected with neuralgia of the trifacial: Acute purulent inflammation of the middle ear; chronic inflammation of the same; chronic inflammation of mastoid process, with or without phlebitis of the sinus transversus, and, at last, cholesteatoma of the middle ear.

The observed phenomena may be explained, in acute cases, by a simultaneous arising of the neuralgia with the ear affection, by the same external causes; or, by an inflammation of the plexus tympanicus with *direct* peripheral conduction, by the nerve petrosus superficialis minor; sometimes with *centripetal* conduction and consecutive irradiation upon the trifacial. In chronic cases there may be supposed: Irritation of the plexus tympanicus, by pressure (exudation, etc.); perineuritis and neuritis; conduction of the inflammation upon the surface of the petrous portion of the temple bone, without caries, mediated by the connective tissue band, extending from the middle ear to the dura mater; partial pachymeningitis; conduction of the inflammation to Gasser's ganglion.

II.—*On Intercellular Canals of the Connective Tissue. (Prof. Jul. Arnold, of Heidelberg, Vol. 68, Dec. 1876.*

When the author had found that, after the infusion of indigo-carmine (indigo-sulphate of sodium) into the blood of live animals, there is to be observed a precipitation in the intercellular canals, he resumed his researches on the system of intercellular canals. There was some probability that, by the infusion in live subjects, there might become visible the course of the nutrient liquid in the connective tissue. The Doctor obtained his best results by infusing a 1–5 per cent. solution of indigo-carmine into the blood of frogs, while he irrigated, at the same time, the animal's mesentery, protruded for this purpose, with a 1½ per cent. sol. of chloride of sodium. This being done, there could be observed spindle-shaped figures, or such having branches in the serous membranes, as well as in the skin, the subcutaneous tissues, the cornea, the tendons and the fasciæ. They all are connected by the conflux of their smaller branches. Thus, a network of blue lines is formed, in which the places of intersection are occupied by the above mentioned spindle-shaped figures. In some tissues there appears a second system of blue lines, running nearly parallel with each other.

Similar results were obtained when the Dr. injected with ferro-cyanate of potassa, and washed the tissue afterwards with diluted chloride of iron. An infusion of a solution of starch, followed by an immersion of the ocject in a weak tincture of iodine, and an infusion of India ink, brought out the network of intercellular canals.

In all these cases there was the coloring matter, deposited either above or below the cells, in consequence whereof the nuclei of the connective tissue cells seem to be situated in the very places occupied by the former. If the vessels of animals become injected after the infusion of coloring matter into their blood had taken place during life, both the infused coloring matter and the injection is deposited in the same places in the tissues.

As the coloring matter infused in live animals is always found, in the same manner, distributed in the tissues, the author concludes that there must exist an arrangement of preformed canals, by which is favored the current into certain directions of the nutrient liquids. It is doubtless that such pre-existing spaces are continually connected with the stigmate resp.

stomata of the endothelium, and that the substances passing the latter, on their way to the tissues, will be carried thither within those spaces.

III.—*On the Origin of the Pus Cells, and on the Changes of the Membrana Propria of the Mucous Membrane of the Lungs, in Cases of Inflammation. (Dr. N. Socoloff, of Petersburg. Vol. 68, Dec., 1876.*

After the theory of the humoral pathologists, every newly-formed cell was considered as the product of plastic exudations. Virchow overthrew this doctrine, and tried to find the true sources of such cells. This was the more difficult since Cohnheim published his observations on the emigration of white blood corpuscles from the vessels. What hitherto was considered as the result of the productive activity of the tissue cells, the new theory explained by the emigrated white blood corpuscles. These should, according to circumstances, form as well pus as epithelium, muscle fibres, or the cells of the skeleton. To the cells proper of the tissue there was ascribed then only a passive part. The proliferations of the cells of the pre-existing tissues, caused by local irritations, were, in consequence of such views, ignored.

The author was induced by Prof. Virchow to examine from whence the round cells originate which are found in the secretions of the lungs in different inflammatory affections of this organ. It is a recognized fact that there are two different kinds of cells in the sputa—pus cells and cells of the mucous membrane. The first are, by many, considered as emigrated white blood corpuscles, while others think that they are partly the products of endogenous growth of the cylindrical ciliated epithelium, and partly the result of the proliferation of the connective tissue of the mucosa.

The Dr. caused inflammation of the air passages for his purposes by inflations of the bichromate of potassa into the tracheæ of rabbits and dogs. His experiments make it evident that the pus cells in the secretions of the air passages are neither emigrated white blood corpuscles nor the products of proliferation of the connective tissue of the mucosa, but that they develop in the epithelial layer itself. The normal connection of the elements of the latter is disturbed; the ciliated epithelium is detached from the sub-epithelial layer and that layer of cell which normally lies in two rows between the ciliated epithelium, and the membrana propria is found in a state of proliferation. The newly formed cells lift, in some places, the ciliated epithelium, or they even break through it, in consequence whereof the epithelium becomes partly destroyed, and partly is placed between the newly formed cells.

Though in some of the epithelial cells there were found round cells, they must not be considered as endogenous products of them, as only perfect cells, and not intermediate forms between such and mere protoplasmic lumps were observed. Besides, the presence of red blood corpuscles in the epithelial cells speaks for this view.

The epithelium of the bronchial glands behaves somewhat differently. It will form round cells in case of certain irritations, so that from tessellated epithelium there may be formed pus cells.

The layer beneath the sub-epithelial layer consists of cells with granulated protoplasma and large nuclei, and resembles the tessellated epithelium, or the endothelium of the blood vessels very much. The author considers, therefore, these cells of the membrana propria as epithelial cells. He thinks that, in case of a sufficiently powerful irritation, which is followed by a lively proliferation in this layer, the latter might continue to produce pus. Besides, he is of opinion that the epithelium of the lungs is only the continuation of the membrana propria, and might, therefore, likewise produce new cells.

Reports of Societies.

State Board of Health.

REPORTED BY THE SECRETARY, DR. H. B. BAKER.

The Michigan State Board of Health held its regular quarterly meeting in Lansing, January 9, 1877.

There were present, Prof. R. C. Kedzie, Rev. Charles H. Brigham, Dr. H. F. Lyster, Rev. J. S. Goodman, Dr. Arthur Hazlewood, and Henry B. Baker, Secretary. Rev. Mr. Goodman was appointed temporary chairman.

A paper entitled "The Locating of Healthy Homes," by Dr. Henry F. Lyster, of Detroit, was read. The condition of the homes of the people may be regarded as an index of their civilization. A complete, healthful and beautiful home indicates health, intelligence and refinement in its occupant. The paper gave an historical review of the different kinds of homes occupied by different peoples; but it also dwelt upon the various unsanitary conditions most common to our modern homes. Those most strongly touched upon were, defective disposal of sewerage, unwholesomeness of water-supply, unfavorableness of location, too complete exclusion of sun-light and air, resulting from excessive shade, lack of proper drainage, etc. The author said that the paper was not as complete as he desired to make it, and the Board requested him to prepare it for insertion in the next Annual Report of the Board.

Prof. R. C. Kedzie, Committee on Poisons, Explosives, Etc., presented a report on the "Quality of Illuminating Oils" in use in Michigan. Dr. Kedzie thinks the people of Michigan are to be congratulated upon the present condition of their illuminating oils, so far as exemption from loss of life and property are concerned. The public prints are not now filled with recitals of deplorable accidents resulting from the use of kerosene. But, notwithstanding this security from accidents, the people justly complain of the quality of some of the oil now supplied. Much of it burns poorly, the wick gums and chars, and the light flickers and goes out. The people demand a change. The refiners claim these to be the necessary results of the high standard required by the Michigan law, and they state that if we will lower our standard to 110° for the flash test, all these evils will disappear, and we shall be still safe from accidents. Misled by these statements, the people are petitioning the Legislature to alter or abolish the present law. Under these circumstances, it is our duty to look carefully at the matter. If the test is too high, we ought not only to consent to, but to urge a change. But if the the test is such as public safety demands, then no clamor of interested or misinformed parties should influence us in the least to swerve from the path of duty. In order to arrive at an intelligent conclusion, in the light of all the facts attainable, Dr. Kedzie, by the advice of the Board, had visited Cleveland in order to examine the methods of refining the crude petroleum to make illuminating oils. The report here gave a review of the different processes in the manufacture of kerosene. Specimens of the different products arising from the refining of the crude oil, rhigoline, paraffine, coke, etc., were presented; also specimens of different sorts of oils, and some with which Dr. Kedzie had performed various experiments.

Dr Kedzie's investigations established the following facts: That to manufacture good oil, which will stand the test required by the Michigan law for inspection, requires either extra care and expense in refining, or it takes what is called the "heart of the run." This is done in the case of what is known as "water white" oil, which is transparent, burns with a clear, bright light, and does not become opalescent by exposure to a temperature of 32° F. But to dispose of the inflammable products and still furnish an oil which will stand the Michigan test, the refiners run into the low test oil the waxy and tarry products, paraffine, etc., which are not readily combustible, and which raise the standard of the low-test oils, rendering them capable of standing the test, but of poor quality for lighting purposes. Among the specimens exhibited was four ounces of paraffine taken from one quart of oil. The presence of a large amount of paraffine has a tendency to gum up the wick and render it incapable of supplying oil to the flame. Dr. Kedzie found that the "water white extra" would flow through 93 millimeters of tube containing wicking, and burn freely, while the "Michigan test," or the oil that contains so much paraffine, would flow through only seven millimeters. The action of sun-light upon oil spoils its burning qualities. It develops in the oil a quantity of tarry matter. Two specimens of oil, drawn from the same barrel, one of which had been exposed to the light for a few weeks, and the other kept in an opaque bottle, were exhibited. The one exposed to the light was decidedly yellow and clouded, while the other was still white and transparent. Dr. Kedzie recommended the use of broad, shallow lamps, which would make but little demand upon the capillary power, and contain only what oil would be burned in one evening. To "a people sitting in darkness," but, thanks to the inspection law, not "in the region of the shadow of death,"—the remedy is emphatically not an abolition of the system of inspection required by the present Michigan law. Nor when a lamp, quietly burning, explodes like a bomb shell and scatters death and destruction broadcast, as was once the case, can we afford to entertain the notion of lowering the standard test? If the test could be extended to ascertain the amount of paraffine present, and rejecting such oil as contains it in amounts which impede the capillary action of the wick or render the oil hard or waxy in cold weather, it might do very much toward removing the difficulties of which the people complain. The best test which he could now propose for this was: The oil should remain clear when its temperature was reduced to 32° F.

Mr. Perry Averill, State Inspector of Illuminating Oils, being present, was requested to present anything bearing upon the subject of illuminating oil and the inspection thereof. He read a report relative to the progress he had made in establishing an efficient and uniform system of inspection, the number of barrels of oil inspected, the number rejected, etc. He said that the petition praying for a reduction of the test to 120°, which has been so widely circulated throughout the State, and which is now pouring into the Legislature from many localities, originated with the Standard Oil Company, of Cleveland, and has been sent throughout the State by its agents. He thought the law should be changed so as to provide for a uniform *flash test*, which should be branded on the barrel, instead of the burning point, as now.

After a long discussion of this subject by the members of the Board, the following resolutions were adopted:

Resolved, That the great reduction, since the present system of State inspection of illuminating oils has been in force, in the number of casualties from lamp explosions and otherwise, through the use of low grade illuminating oils, is an indication of the value of such inspection, and of the present test.

Resolved, That a committee, of which Dr. R. C. Kedzie shall be chairman, shall be appointed by the Chair, to take such steps as circumstances may require, to furnish the Legislature with any information in the possession of the Board regarding the workings of the law for the inspection of illuminating oils in this State, and to act for the Board in maintaining the present standard of inspection, so far as regards the flash test.

Dr. H. O. Hitchcock, Chairman of the Committee on Legislation in the Interests of Public Health, submitted a report including a proposed memorial to the Legislature, asking that a commission be appointed to investigate and report in two years concerning the influence of the liquor traffic upon the life and health of the people of the State. to ascertain, as far as possible, the value to the State of the traffic in alcoholic drinks, and the losses to the State fairly chargeable to the use of intoxicants, and to report all facts which have a rational bearing upon the Vital Statistics of the State, the object being to collect facts upon which to base future legislation, if found desirable.

Rev. Mr. Brigham reported upon a subject previously referred to him, namely, the sanitary influence of the *Eucalyptus globulus,* or blue gum tree. He read letters from persons who had studied the habits of the tree, including one from Dr. Asa Gray, who thought the tree could not be made to thrive in Michigan, on account of the severity of the climate. Dr. Lyster said the trees were growing in Detroit; that by being cut back they had become somewhat hardened. He recounted instances in which the tree had been planted in certain insalubrious regions in Africa, where they had a remarkably beneficial sanitary influence.

Dr. O. Marshall, of Lansing, presented, through the Secretary, a communication on "Opium and Morphine Eating." He gave facts concerning 25 cases which had come under his observation. He thought the evil was increasing, and that measures should be taken not only to assist those who are already victims, but to prevent others from acquiring the habit, and he believed this to be a proper field of labor for the State Board of Health. Of the 25 cases reported, 9 use morphine, 15 use opium, and 1 uses both. Dr. Marshall thought a law regulating the sale of these drugs was needed, and might prove effectual. He especially urged the prohibition of the sale of soothing syrups, cordials and anodynes, which are preparations of opium or morphine in disguise, and which create in the infant a predisposition to the opium habit in the adult. The author was requested to prepare a paper on the subject, for publication in the next Annual Report of the Board.

Dr. Milton Chase, of Otsego, submitted to the Board a proposed bill relative to the qalification of physicians who practice in Michigan. It provided for furnishing to the people information relative to the professional study of those who practice medicine in Michigan ; such information being furnished by means of sworn statements filed with the County Clerk in the county where the physician practices.

The Secretary submitted a report relative to duties performed and work done in his office since the last meeting of the Board. The work has consisted largely in the preparation and publication of the Fourth Annual Report of the Board and the distribution of blanks to Clerks of local boards of health for their annual reports and reports of diseases dangerous to the public health. The number of local boards of health in this State is about 1,200. The report accounted for considerable work in the way of computing data on meteorological observations, correspondence relative to prevailing diseases in 1876, and other work pertaining to the office.

The next regular meeting of the Board will be on April 10, 1877.

Transactions of Flint Academy of Medicine.

Flint Academy of Medicine met at Dr. Chapin's office on Tuesday, February 6th, 1877, President Dr. Fish in the chair. Members present—Drs. Chapin, Clarke, Cogshall, Fish, Tobes, Hurd, and Willson; Dr. Eastman present by invitation. Minutes of last meeting read and approved. A communication from Dr. Palmer, in regard to establishing a nine, instead of a six months course of lectures at the University, was read, and, on motion of Dr. Clarke, was placed on file. The secretary inquired of the Society as to the questions which had been raised in regard to publishing the report of the proceedings in the journals. Dr. Willson said that the secretary was required to furnish reports for the medical journals. On motion of Dr. Clarke, the President and Recording Secretary were made a committee to revise the proceedings for publication in the local paper. Dr. Chapin moved as a substitute, that the Corresponding Secretary be added to the committee, which was carried. Dr. Willson exhibited specimens of professional cards issued by the physicians in Canada, and explained the manner of using them. Dr. Chapin brought before the Society a case of talipes, treated by Sayre's method of bandaging, at the same time showing photographs taken before treatment was commenced.

Dr. Willson expressed his opinion, that before a cure was reached, the Doctor would be obliged to resort to tenotomy.

Dr. Chapin also referred to a case of hare lip, complicated with cleft jaw and palate, operated upon a few days since.

Dr. Chapin presented the name of Dr. Joseph Eastman as a candidate for membership of this Academy.

On motion of Dr. Willson, the society acted upon the application at once. The President appointed Dr. Clarke as teller, and the Society proceeded to ballot for Dr. Eastman.

The Society having voted in favor, Dr. Eastman was declared elected.

Dr. Willson gave notice that at the next meeting he would move to amend the constitution.

On motion, the Society adjourned, to meet at Dr. Willson's office.

GEO. W. FISH,
President.

E. H. HURD, M. D.,
Secretary.

Detroit Medical and Library Association.

DECEMBER 6, 1876.

President, Dr. Jas. A. Brown in the chair.

Dr. Shurly presented a ball of hair, about the size of a base ball, taken from the stomach of a bullock. In external appearance it was hard, smooth, shiny, and of a reddish brown color, and furnished no indication of its real composition. A small perforation, however, showed that within it was simply a mass of hair. The Doctor stated that it was a somewhat rare curiosity, and he found no mention of such concretions, except in one of Bennett's works. It was supposed to be formed by the animal's habit of licking himself.

Dr. Shurly also presented two specimens of pure albumen, one prepared by Mr. Frank, and the other by Mr. Plessner, druggists, of this city. The first had been kept in a loosely corked bottle for about eighteen months, but gave no evidence of decomposition or change. The albumen is prepared from the whites of eggs, by evaporation, produced by passing over a thin layer of the thoroughly beaten eggs a current of air at a temperature not exceeding 110°. Great care must be taken in the process of preparation to avoid coagulation by too high a temperature, as the utility of the preparation is thereby destroyed.

The albumen readily dissolves in warm water, milk or soup, and this may be taken as a test of its value. The theory of its action is, that it is readily changed into albuminose in the stomach, and thus assimilated more readily than cooked albumen. It was valuable in all wasting diseases, and especially in phthisis.

Dr. E. Smith presented two eyes enucleated by himself, the history of which he detailed as follows:

The daughter of Mr. B——, five years of age, when an infant was being rocked by a servant sitting in a large rocking chair, the child's head lying on top her nurse's shoulder. While in this position the chair tipped back against a glass door, the child's head and face breaking the glass. The face and right eye were wounded, the eye being cut through the cornea. Pieces of glass were removed from the wound in the face, but whether any entered the eye or not, was not known. I was consulted May 10th, 1875. The wounded eye was very much enlarged in all its diameters, the globe being nearly double the size of its fellow, so that the lids could not be closed; there was an irido-corneal staphyloma; a decrease of tension; *no tenderness* on pressure in the ciliary region. Enucleation was advised and performed for its cosmetic effect, as the appearance of the child, otherwise pretty, was disgusting. Assisted by Dr. Munson, I performed the operation the same day. The eye has been hardening in alcohol since that date. On opening it, I find a complete detachment of the retina, the iris in contact with the cornea, the sclerotic very much thinned. The lens was lying in the bottom of the eye, surrounded by a mass of dirty looking substance, enclosed in the completely detached retina. This substance had the consistency of normal vitreous, and in quantity was sufficient to fill about one quarter of the globe. The choroid seems, like the sclera, to have enlarged at the expense of its thickness, it being very thin, but everywhere in apposition with the sclera. The stretching of the choroid seems to have obliterated the ciliary processes, and the ciliary body is very much thinned. The lens is enlarged and of a dirty brown color. In the remains of the vitreous I found a small piece of *glass*, completely surrounded by a substance a little denser and lighter colored than the vitreous. The case is a very interesting one in all its particulars, and especially in the great general enlargement and the length of time, over four years, that the piece of glass had been in the eye.

The following is the history of the second case:

Mr. T.——, of Ovid, Mich., brought his son, aged seven years, to me, Nov. 22d, 1876. Three weeks before the little fellow was kicked in the eye by a horse, the heel-cork of the shoe undoubtedly entering the right eye at its inner half. He was taken care of by two excellent physicians of Ovid, who attended to the wounds of the face, but, owing to the swelling of the lids, were unable to tell anything about the eye until the inflammatory symptoms had subsided. As soon as they discovered its condition, they sent him to Detroit for special advice. The morning he consulted me there was slight intolerance of light and lachrymation of the sound eye.

With the ophthalmoscope, the fundus was doubtfully hyperæmic. The injured eye was painful on pressure in the ciliary region, opposite the seat of the wound. I advised and performed enucleation the same morning, notwithstanding the fact that the *day previous* an eminent specialist had advised that there was no *immediate* necessity for enucleation, though the eye would probably have to be excised sooner or later. No doubt the irritation, which was *well marked* on the morning of the 22d, might have been absent the afternoon of the 21st, having arisen during the night. That there *was* immediate necessity for enucleation, even had there been no irritation of the well eye, is positively shown by the specimen, which I present for your inspection. The cornea was clear, though drawn out of shape by the cicatrix; the anterior chamber was filled with a straw-colored fluid; the vitreous chamber *seemed* to be filled with a dark substance which I took to be a blood clot. I say *seemed*, and such is really the case, yet an examination of the specimen shows that it was impossible to light up the vitreous chamber, as the pupillary space was filled with inflammatory material and blood clot. The iris could not be recognized before enucleation. The specimen which I bring before you shows very plainly the character of the terrible wound, and its position shows most emphatically the necessity for *immediate* removal. The globe is somewhat puckered, a deep groove running about half way round the eye, the centre of which is about one line from the sclero-corneal junction, and in front of the insertion of the internal rectus muscle. The extremities are near the equator, forming a deeper pucker near the insertions of the superior and inferior recti muscles. The wound had undoubtedly been nearly, or quite, an inch long. The posterior edge of the sclerotic seems turned in, and is distinctly thickened and club-shaped. The wound is filled with new connective tissue, the prolapsed iris and a part of the detached retina being drawn into the scar, which is through the ciliary body. The lens was absent. It probably escaped with the vitreous, at the time of the injury. The retina was detached, except at the optic disc, and the centre or anterior part of the wound. The space between the retina and choroid was filled with blood clot, the choroid being *in situ*.

THEO. F. KERR, M. D.,
Secretary.

JANUARY 17, 1877.

President, Dr. Jas. A. Brown, in the chair.

Dr. Smith read some notes on the use of mercury in the treatment of iritis, in which he advocated the free use of this remedy in all severe inflammations of the iris, and especially in those arising from the specific poison of syphilis. If the parenchyma was seriously affected, and there was danger of occlusion of the pupil, he pushed its use to salivation, getting that effect very quickly by inunction, and keeping up the effects on the system by the use of corrosive sublimate. Energetic treatment of iritis should be pursued, as thus a frequent cause of iridectomy was removed.

Dr. Connor inquired of Dr. S. what he found to be the most frequent cause of iritis. He replied that syphilis and rheumatism were by far the most frequent causes—three out of four cases treated recently being syphilitic.

Dr. Connor likewise requested a general expression of opinion on the relative value of bovine and humanized vaccine virus.

Dr. Shurly stated that he was using both kinds, and had the best results from the bovine virus, procured from Dr. Griffin of Fon du Lac, Wisconsin. The lymph, he considered much more reliable, and much more satisfactory, in its workings than the crust. The more energetic action of the latter was owing, perhaps, to the introduction of organic matter other than the vaccinia corpuscle.

Dr. McGraw remarked that perhaps one reason why lymph was more reliable than crusts, might be that the crusts were removed after the lymph had been withdrawn, as the former were not often recommended.

Dr. Yemans also spoke highly of Dr. Griffin's bovine virus. It was the best he had ever used. Eighteen out of twenty vaccinations performed with it at one time were successful.

Dr. Carstens, in speaking of the danger of erysipelas following vaccination, thought the danger greatly magnified. If the inflammation was pretty severe, and there was considerable erythema, it was put down as erysipelas by the laity. He had superintended about four thousand vaccinations in the Polish district, and did not know of a single case of erysipelas.

Dr. Yemans called attention to the minute quantity of virus sometimes necessary to infect a person, and related an instance of a man's producing the characteristic vaccinia pustule *on his hand* by scratching himself with an instrument which had been systematically cleaned.

This led Dr. McGraw to remark that it was just in this way that syphilis was propagated through vaccination. The last patient, perhaps, was a syphilitic one, and the lance had been used to rub the virus on the scarified spot, and the lance was simply wiped off, a proceeding which, in all probability, left a minute quantity of syphilis-tainted blood on the instrument. When the same method was pursued with the next patient, this tainted blood was dissolved and left on the arm, and thus an innocent person might be infected with a terrible disease.

Dr. Connor called attention to a method of keeping virus on lime, which he thought worthy of attention. A friend of his had kept a crust all summer, wrapped in a piece of paper, and lying on top of a small quantity of lime in a loosely corked bottle. The virus had worked well in the fall, and the Doctor thought it was a safe and cheap method of preserving it.

Dr. Shurly had kept virus for more than a year in an ice-chest, and then had used it with success. He thought this the most certain and reliable method of preservation, though it was not always available to every one.

THEO. F. KERR, M. D.,
Secretary.

FEBRUARY 7, 1877.

Dr. Eugene Smith was called to the chair.

Dr. Stevens stated that bronchitis was quite prevalent in the western part of the city, children, especially, were attacked, but he had seen very little capillary bronchitis.

Dr. Connor had attended some cases of capillary bronchitis in children, which he had successfully treated with carbonate of ammonia and quinine, giving two grains of the former every two hours, in some cases.

For the cyanosis, which resulted when the ultimate divisions of the bronchi were choked with the secretions, he wrapped the patient completely in cloths wrung out of hot water, changing them frequently. Such proceeding seemed to stimulate the pneumogastric nerve, and thus both circulation and respiration were improved.

Dr. Gilbert spoke strongly in favor of Dr. Connor's method of treating bronchitis. He had seen one of his own children saved by it, when all hope seemed groundless. For three days the treatment was persevered in, though the patient was cyanotic, and the child recovered—the medicine saved him. When a certain line of treatment has been proven so potent, let us stick to it.

Dr. Gilbert also spoke on the subject of vaccination, which had been discussed at the last meeting. He believed that physicians were often too negligent in ascertaining the results of their vaccinations, and took the word of their patients, when an examination would exhibit a different result from that claimed; patients often magnified the symptoms which attended a simple local inflammation, the result of the scarification only. This should not satisfy us. We should satisfy ourselves, by careful examination, that the specific inflammation had taken place, and that a typical scar remain; in short, do our work in a scientific manner.

Dr. McGraw questioned whether one would get the typical inflammation when the protective power of a previous vaccination was just about expiring. There would be some inflammation, but not a typical crust. In secondary vaccinations, we should weigh all the probabilities in the case, and secure the best possible result.

Concerning the danger of infecting the blood of the person vaccinated with septic material from an unclean lance, Dr. Inglis remarked that he always took the precaution to hold his lance for a moment in the flame of a lamp, which effectually destroyed any organic matter that might be left on it.

Dr. Stewart reported two cases of pneumonia which he had treated after the old antiphlogistic plan—that is, with bleeding and antimony, and both had made good recoveries. He had also seen two other cases treated from the first with stimulants, and both had proved fatal. He took the occasion to express his belief in the superior efficacy of the former method of treatment, and thought fewer deaths occurred when patients were thus treated, than when subjected to the modern plan of stimulation. In answer to inquiries, the Dr. said that he believed one of the fatal cases would have recovered, if treated after the antiphlogistic fashion. The other, being a very asthenic individual, probably could could not have borne it.

Dr. Smith reported the following interesting case:

A gentleman of Windsor, father of nine children, brought two of them, aged respectively seven and fourteen years, to him, on account of a strange blindness coming on at nightfall. The Dr. found them afflicted with a peculiar form of inflammation, known as retinitis pigmentosa, arising from a deposit of pigment in the retina. The symptoms were simply a contraction of the field of vision and blindness, coming on at nightfall. Under artificial light, a person so afflicted would stumble over any obstacle in their path. He had seen, perhaps, twenty cases in all, but had never been able to find the cause, as stated by Liebreich to be consanguineous marriages.

In these two patients, the ophthalmoscope showed the retina beautifully, but with specks of pigment deposited on the temporal side, outside the optical pillars. As the disease progresses the deposit increases in area towards the centre, resulting, finally, in atrophy of the optic nerve, and total, incurable blindness.

Dr. Inglis reported a case of rheumatism which he had treated with opiates and alkalies, internally, with ammonia liniment, on flannel, to the affected joints. The patient was making a good recovery, was able to sit up in bed on the eighth day, with returning appetite, and the Dr. was not to call next day. However, the next evening he was sent for, and on reaching the house, found his patient in a state of "vigil coma," with a temperature that rose to 109°. He learned that the delirium had begun the previous evening, and made the diagnosis of cerebral rheumatism. In an hour the patient was dead. In answer to inquiry, the Dr. stated that he had only applied a cold compress to the head, as he did not think that anything could be done to save the patient's life, when it was remarked that it would have been interesting to have noted the effect of the cold bath, as recently advised, even in such a desperate case as this.

THEO. F. KERR,
Secretary.

Correspondence.

Intussusception of Bowels—Cure by the Sloughing of the Strangulated Portion.

CENTER, SHELBY CO., TEXAS,
February 11th, 1877.

MESSRS. EDITORS:

Some time in the early part of September, 1876, I was called to see Mrs. P——, (æt. 36, mother of eleven children), and found her in the following condition: Patient very restless, countenance anxious, great thirst, stomach very irritable, rejecting everything she swallowed, pulse considerably over normal (don't now remember how much), and small skin cool and corrugated. I obtained from her the following history of her case. A few days previous to my visit she had had a chill, and the night before I saw her, in the evening, she had taken (as she termed it), broken doses of calomel, but it did not act to suit her and she had followed it with magnesiæ sulphas, which still did not act to suit her, and, as she thought, brought on a spell of colic, which was the cause of my being sent for. I forgot to say that she complained of intense pain in the right hypogastric, also umbilical region. From the excessive vomiting and its peculiar odor (being somewhat stercoraceous), I thought I had a case of hernia, and I immediately examined her for that malady. Not finding any tumor, I was at a loss to know from what my patient was suffering. I forgot, also, to state she was about 6½ months advanced in pregnancy, so that I could not make any satisfactory examination of the abdomen. My impression was, that it must be threatened abortion, and so stated to her. She then told me that she had fallen off of her bed the night before. I gave her a dose of morphine to quiet her, if possible, but her stomach immediately rejected it. I then injected a large quantity of warm soapsuds into the rectum, adding laudanum. She retained the enema a short time, and when it came away there was no trace of fœcal matter. I applied warm fomentations to her bowels, and put her upon the following prescription: Hydrarg. chlor. mitis, grs., viij; morphiæ sulph., grs. iv; divide in chart No. 8; give one every two hours; use injections of warm soapsuds every two or three hours, and to keep up the warm fomentations. I left for the night, promising to call the next morning. Found my patient in about the same condition as when I left. My suspicions were now fully aroused as to obstruction of bowels, and I concluded to try the effect of large doses of calomel, and, accordingly, gave her 40 grains, with morphine, grs. ⅛. I waited two or three hours and repeated the dose, and shortly followed with oleum ricini ℥j—all of which did no good. I then tried enemas of infusion of senna leaves and epsom salts, which she retained half an hour; probably when it was passed I could detect a slight fecal smell. As her pains were so severe, I asked that Dr. Hayden, an older physician residing close by, be called in. During the consultation nothing was said regarding intussusception, for I was afraid that my fears were groundless, and he seemed to think the vomiting due either to the threatened abortion, or to some obstruction in the bile duct, as she was considerably jaundiced. We agreed to keep up the calomel and morphia for its alterative effect, and, in addition, Dr. H. applied two large tumblers, as cups, over the right and left hypogastric regions, also mustard draughts to the inside of ankles, as her extremities were getting very cool. As we were fearful that abortion would come on I remained during the night. About 10 o'clock at night she got quieted some, and I repaired to a neighbor's house, close by, to rest (there being a crowd at the house, as is usual, in the country). I had just laid down when a messenger arrived, stating that the lady had become worse. As soon as I could dress I hastened to her, and arrived just in time to receive the child, which was presenting at the vulva, vertex presentation. After the placenta was delivered I thought she would rest, but in this I was mistaken. The same colicky pains came on shortly afterward, and she called me to her bed, saying, doctor, you can now feel that knot that I have been telling you about. (She had frequently said it felt like a knot drawing her.) I examined her, and found a little below, and to the right of the umbilicus, a tumor something near the size of a lemon. My worst fears were then realized, and I took her husband to one side and told him that his wife must die. I left morphine and calomel powders, also Dover powder, to give to quiet the pain, promising to return next day, if she were still alive. I came back the next day, and for two more. One the third day after the abortion she fainted away, but, by stimulants, she rallied, and then she expressed herself relieved, and told me she felt the knot give away just before she fainted. In a short while she got over the chamber and had a very free action from the bowels, dark and very offensive. I then left off the calomel and substituted quinine, in tonic doses, also carb. ammonia, grs. iv., in sweet milk, every four hours, strong beef tea, chicken water, and other nutritious dishes. Not having any bismuth sub-nitrate, I used lime water and morphia, to quiet stomach. Under this treatment she rallied very fast, and, having a press of business at that time, I did not see her for several days. I was then sent for to tell them what it was that she had passed while at stool. I was shown a piece of intestine (I believe it to be), about 12 or 14 inches long, tubular in form, partly decomposed, having also a strong fecal smell. In their presence I pronounced it a part of the bowel. I brought it to my office and showed it to two other physicians, and they concurred with me. I saw Dr. Hayden several days afterwards, and told him about it, and my opinion regarding it, in which he did not concur, saying that it was impossible for one to live in that condition. My own view of the case is this: That a portion of the bowel slipped into a lower portion and became strangulated, and that the invaginated portion sloughed off, leaving the two surfaces in apposition. The irritation caused by the invagination set up adhesive inflammation, and when the invaginated portion sloughed away, it left the gut open, only shortened to the extent of the portion sloughed away. The lady got up, and was able to walk half a mile or more, but has never fully recovered. I saw her not long since, since Christmas, when she told me that she had never been able to take solid food without the colicky pain. Her kidneys were sluggish, also. I prescribed bismuth subnitrate to quiet irritability; also 10 drops of liquor ferri oxy sulphas, made by dissolving 2½ drachms sulphate iron in 3 drachms nitric acid, stirring until effervescence ceases, then adding water 1½ oz. Ordered cod liver oil to increase fat, and acetate potash to act on kidneys, under which she improved, and is doing very well, though I don't believe she will ever fully recover, as she is somewhat broken down by rapid childbearing and manual labor. Being poor, she has had to do all of her household work, such as washing, etc., and, besides, work in the field. I have given you the history of this case in a very imperfect manner, never having written a piece for publication before, being young in the practice of physic, having commenced in 1871. If you think it worthy a place in your journal, you are at liberty to publish it, and I may give you something else that I consider novel. I will say that I can't see that the treatment I used did the lady any good, and that it was a spontaneous cure.

I remain, very respectfully, your obedient servant,

JAS. W. ROGERS.

N. B.—The lady now has no difficulty in passing fæces, and hasn't had since the fainting spell above referred to. J. W. R.

Abstracts From Exchanges.

Practice of Medicine and Therapeutics.

CHOREA TREATED BY THE EXPECTANT METHOD.—Drs. Gray and Tuckwell (*London Lancet*) say that they have treated, without medicine, thirty-eight cases of chorea. Their success was, at least, equal to the treatment by medicine. The average duration of their cases was nine weeks and six days, or exactly the average of See's one hundred and seventeen cases treated with various medicines. They state that they are inclined to rely on isolation, a good nurse, a large crib, well padded and walled in with pillows, plenty of nutritious food without stimulants, until more conclusive evidence can be adduced that the disease is favorably influenced in the slightest degree.

THEORY OF NERVE DISEASES—DR. BROWN-SEQUARD.—The "British Medical Journal" (*December 2, 1876*), in mentioning the conclusion of Dr. Brown-Sequard's lectures at the King and Queen's College of Physicians, Dublin, gives a brief synopsis of the views of the distinguished gentleman upon the localization of function and disease in the brain, which, although published more at length in his original essays in his journal, in 1871, may prove of interest to many of our readers. "Symptoms of paralysis, anæsthesia, amaurosis, aphasia, etc., are due to irritation, and not cessation in the function of various parts of the brain; for irritation of parts, around the portion destroyed by disease, causes certain sensations; not that the part destroyed causes them, but because an irritation starting from the place aroused, influences cells, some near, some at a considerable distance from the locality of the lesion. Dr. Brown-Sequard, therefore, believes that certain functions of the brain, instead of being localized in clusters of cells, are, on the contrary, spread over the greater (if not the entire) part of the brain; and this theory explains a very large number of cases of disease which otherwise it would be impossible to understand Parts in the brain supposed to be endowed with special functions can be destroyed without any alteration in the loss of function, and vice versa; so that it follows that any part of the brain can produce anæsthesia, aphasia, etc., and parts supposed to contain special functions can be destroyed without causing aphasia, paralysis, etc. In cerebral affections he places the most reliance upon the actual cautery at a white heat and scored along the back of the neck opposite the last cervical and first dorsal vertebræ, and strychnia pushed so as to produce its physiological effects.

PROGRESSIVE FACIAL HEMIATROPHY.—Dr. H. M. Bannister *(Journal Nervous and Mental Dis., Oct., 1876)* gives the following facts and probabilities respecting this peculiar disease:

1 Progressive facial hemiatrophy is a neurosis. This is indicated by its limitations to one side of the face and to the regions supplied by special nerves; by implication in some cases of the sensibility, and even special senses; by merely the distrophic character of the changes it produces in the tissues, without any indications of disease or alterations of the essential structure; by the close analogy, in some respects, with the neuralgias, attended with local hypertrophies.

2. As regards the nature of the nervous trouble, it appears, from an analysis of the symptoms in a majority of the cases reported, that the essential lesion is not in the vaso-motor system, but rather in the trophic functions of other nerves. Vaso-motor symptoms, properly speaking, are lacking in a majority of cases.

3. From the evidence afforded by a large proportion of the reported cases, it seems justifiable to suppose that the trophic functions of the fifth nerve are especially implicated. The facts that render this probable are the frequent limitations of the atrophy to the regions supplied by this nerve or its separate divisions, the analogy with the neuralgic atrophies and the occasional sensory symptoms. I may add, also, that the lack of symptoms that would lead to the inference of implication

of the facial nerve is in favor of this view, at least, as assisting in a kind of diagnosis by exclusion. The hypothesis that the atrophy depends upon alterations in the ganglia on the fifth nerve cannot be said to be very well supported by the facts in our possession as to the results of disease of these ganglia, but it may be the correct one.

4. In some cases there are evidences of positive lesions of other cranial nerves than the fifth—paralysis or irritation of the sympathetic; paralysis of the abducens; of the auditory and glosso-pharyngeal. In some of these observations, where the disorder was apparently due to traumatic causes, syphilis, etc., the facial atrophy is, perhaps, to be considered as only one of the manifestations of the more general intra-cranial disease, of which these other phenomena were also symptoms. Still there are some facts that indicate an alteration of nerve nuclei in the medulla, in many of the cases, the direct cause of which is not obvious.

5. The symptoms of the disorder indicate a chronic, trophic asthenia, or paralysis, rather than any irritative action. This is proven by the slow progress of the disease, its usual unirritative character, and such symptoms—the slower reparative action in wounds on the affected side.

6. That the disorder, however, is not merely one of arrest of development, is shown by the actual wasting of the tissues—the more solid ones, such as the bones, among them in many cases. In this it has a resemblance to the atrophy of old age, with which it seems to have other analogies suggestive in regard to its pathology. Cases of congenital facial atrophy that are not infrequently met with, have not generally the progressive character of this affection, and are more properly to be reckoned as due to arrest of development.

7. There are various peculiarities of this disease, which, in the present state of our knowledge, cannot be accounted for in any way; still they serve to support the neurotic and local theory of the affection. Such is its unilateral character, the greater frequency of its occurrence in females than in males, etc.

8. Therapeutic measures have so far failed to produce lasting benefit for the most part. Two or three cases seem to have been benefited by Farradization, and the prognosis,as regards recovery or arrest of the disease, is not altogether hopeless. If, as has been suggested as possible in one of the cases here related, it ever depends upon a reflex cause, or when it seems due to specific disease, like syphilis, the cutting off of the original irritation, or proper specific treatment, would seem to be the most promising remedial measures.

9. The disorder does not seem to involve life. It is possible, however, that, in some cases, it might extend to organs that are essential to life, especially if the nuclei of various cranial nerves are involved in the morbid process.

MASSAGE—ITS VARIETIES—RATIONAL INDICATIONS.—The following account of massage we extract from *Med. Times.*

The meaning of the term is, in plain English, shampooing. The various manipulations, included under the term, comprise stroking or friction, rubbing, kneading, percussion. Each of these may be employed separately or several in conjunction.

Stroking is performed by passing the hand gently and slowly over the surface desired to be acted upon, the flattened palm pressing against the skin, and the motion being in a direction from periphery to centre.

Rubbing is similar in every respect, excepting that the movements are more vigorous, and are not confined to a single direction. Previous to rubbing, all hairs should be removed from the part to be operated upon. Fat or oil is sometimes used with advantage. Rubbing should be practiced with both hands, simultaneously.

Kneading is performed by seizing the part in the hand, raising it from the subjacent tissues—rubbing, rolling, or kneading it between the palms, or moving it to and fro on the parts beneath. These movements are to be alternated at times with brisk friction of the surface.

Frequency of use. Under favorable circumstances massage should be practiced twice daily, at an interval of three or four hours. Each sitting may vary from six to ten minutes.

Advantages. It promotes absorption of effused material, accelerates the circulation, assuages pain, and reduces temperature.

Rationale. Stroking and rubbing from the periphery towards the centre leads to a direct pressure upon the interstitial lymph canals, and thus aid in carrying away the products of effusion. The rapidity of the vascular current is increased and the blood vessels contracted.

When, during inflammation, stasis exists in the arteries, the stroking movement first arrests the flow for a moment and sends the arterial current backward, while accelerating that in the veins. As this momentary pressure is removed, the vessels are filled again, the blood overcoming the stasis, and the circulation becomes more active. Massage brings about absorption by its direct influence upon the lymphatics and capillaries. The swelling in the affected part goes down, the sensory nerves are freed from the tension and pressure to which they had been subjected, their irritability is abated by further manipulation, and the temperature of the locality operated upon is lowered. In chronic inflammation, vigorous circular rubbing, combined with rubbing from periphery to centre, crushes the newly formed blood vessels in the hyperplastic tissues. The fluid portions of the extravasation being drained away by the pressed-out veins and lymphatics, the more solid portions deprived of nourishment, proceed to retrograde metamorphosis, and are also gradually absorbed. The muscles are increased in vitality and power by these varied manipulations.

Indications for Massage. Conditions of disease in which the following exist, viz: Hyperæmia, extravasations, exudations, hyperplasiæ, condensation, and thickening of the tissues or adherence between sinews and their sheaths.

We are positive that in a large class of cases the judicious application of massage would materially enhance the results. Nurses should be so trained as to be able to properly perform it.

Physiology.

PHYSIOLOGICAL ACTION OF ELIMINANT ALTERATIVES.—Dr. T. Lauder Brunton (*Practitioner*, Sept., '76) concludes an article on alterative medicines as follows:

1. All medicines may be called alterative, but the name is specially applied to those which imperceptibly modify nutrition.

2. Nutrition is carried on in the intestine, and probably by means of ferments.

3. Alteratives probably modify nutrition by modifying the action of these ferments.

4. Nitro-hydrochloric acid probably acts in headache and also in the depression of spirits associated with oxaluria by modifying the action of ferments in the intestine or liver.

5. Lithates are probably formed in the liver and also in the muscles. The question arises, is nitro-hydrochloric acid useful in stopping the lithates from disorder of the liver and digestion only, or is it also useful when the lithates arise from other causes?

6. Colchicum is probably useful in gout, by diminishing the production of uric acid.

7. Iodide of potassium acts on the lymphatics.

8. Mercury acts on the albuminous solids.

ACTION OF ANÆSTHETICS ON MUSCLES AND NERVES.—(*Med. and Surg. Report*, Jan. 20, 1877.)—M. Conly, of Paris, finds that when animals are killed by chloroform, ether, or chloral, the muscles and nerves retain their irritability for a much longer time than when the animal meets its death from hemorrhage, compression of the heart, or asphyxia. This is particularly true in the case of chloral. He believes that is due not to a direct action of the anæsthetics upon the spinal cord, but to a particular modification of the muscles and nerves, caused by the action of these agents through the blood, similar to that which occurs in poisoning by carbonic oxide.

VENOUS PULSE AN HABITUAL SYMPTOM OF THE PHYSIOLOGICAL ACTION OF CHLOROFORM.—(*Bulletin de l'Academie de*

Medicine de Belgique. Med. Record, Jan. 20, 1877.)—Prof. L. Noel at Louvain first observed this phenomenon. It appears always at the same period of the anæsthesia, that is, during the period of awaking. The internal jugular, the subclavian, in more than half the cases, the external jugulars, and sometimes even the facial veins are then the seat of isochronous pulsations with the radial pulse. They appear very marked to the eye, but give only a slight sensation to the finger. They continue about half an hour, diminishing, gradually, in intensity. During all this time the heart's action and the respirations present no particular modification. The professor thinks this indicates a profound perturbation of the functions of the heart, and proves that the organism is still under the influence of the anæsthetic. He thinks that it is due, possibly, to an incomplete closure of the right auriculo-ventricular valve; on the other hand, it is not unlikely that the poison causes an engorgement of the venæ cavæ and the right ventricle, which prevents the escape of the contents of the auricle into the latter. Whatever may be the cause, it is important for surgeons to watch their patients while they are recovering from an anæsthetic.

LOCAL ACTION OF ASTRINGENTS UPON THE VESSELS.—(Dr. H.Rosenstien, J. M. Rossbach's Pharmak. Untersuch, 11, 1–2, 1876. *New York Medical Journal,* Jan., 1877.) The mesenteries of curarized frogs were the field of experiment. The transparent membranes were extended over the ring in the cork table, and the selected vessels accurately measured by means of the ocular micrometer; then a uniformly large drop, measured my the pipette, of the 0.1 –50.0 per cent. solution of the astringent was applied to the vessel. The metronome was immediately started, and thus the time between the application and any change in the vessels was accurately determined. The following substances were employed:

1. Nitrate of Silver.—This agent sustained its ancient reputation, for contraction of the vessels, the veins as well as the arteries, without any previous dilatation, to the half of their original diameter took place in from sixteen to eighty seconds

after the application, the time varying according to the strength of the solution.

2. Tannic, Gallic and Pyrogallic acids, instead of producing any constriction of the vessels with retardation of the blood current within them, caused dilatation of the arteries, capillaries and veins to double their original size. The same effects were produced after the removal of the cord, destruction of the medulla, and even of the brain, so that they were not of reflex origin.

3. Acetate of Lead acted in the same way upon the vessels, with the exception of the capillaries, as the Nitrate of Silver, though in a less powerful degree. The formation of white coagula in the center of the vessels was also frequent, and the author concludes that these are due to increased adhesiveness of the white corpuscles, thus causing a greater tendency than normal to coagulation.

4. The Sesqui-chloride of Iron, unless in 50.0 per cent. solution, produced no effect upon the vessels, and even in that strength was much less powerful than the Silver and Lead salts.

6. Alum.—The experiments with this substance were negative in results, as it produced sometimes contraction, sometimes dilatation, and at other moments no change whatever could be observed.

Surgery.

INTUSSUSCEPTION—SEPARATION AND EXPULSION OF SEVENTEEN INCHES OF THE SMALL INTESTINE.—Dr. E. P. Gerry *(Boston Med. Jour., Dec. 28, '76)* reports a very rare case. Patient was a man aged seventy-one years. After an illness of three weeks, he passed seventeen and one eighth inches of small intestine, and finally fully recovered. The constitutional symptoms attending the process of invagination and separation of the intestine were comparatively trivial—so much so that some of the consulting physicians doubted the existence of intussusception.

TREATMENT OF INTUSSUSCEPTION BY FORCED ENEMATA.—Dr. Thomas Hawkins, physician to Bellevue Dispensary, is reported by Dr. F. J. Garbit, in the *Medical and Surgical Reporter*, to have successfully treated three cases of intussusception, or invagination, by means of fluid injections per rectum. The patients were placed in the chest-and-knee position, and the instrument used an ordinary Davidson's syringe. Contrary to the injunctions of Flint, that "the injections should not be pushed beyond the point at which they are borne without much suffering," Dr. Hawkins found it necessary to use all the force of which the instrument was capable. He believes that the reason the injection of fluids in these cases has not been more successful in the hands of physicians who so bitterly oppose their use is, because they did not push it " beyond the point at which it could be borne without pain." He quotes, with approval, Dr. Robert Battey, who has caused " the fluid to pass through the entire alimentary canal and flow into the mouth." He is "convinced that success may be achieved in nine cases out of ten, and the strangulated intestine restored to its normal position by the use of forced enemata; and, unless there be some well-grounded apprehensions of gangrene, in every case of intestinal obstruction, whether suspected, incipient or developed, the injection of fluids, judiciously and properly directed, need be the only means of cure invoked, except the occasional administration of an anodyne." The three rules essential to success are:

1. The use of the utmost force possible, but with great care and caution.

2. Persistent and continuous repetition of the injection until the passage is effected.

3. The adoption of a suitable position for the patient.

CAUSTIC ARROWS—THEIR PLACE IN PRACTICAL SURGERY?—Dr. J. C. Hutchison *(Proceedings Kings County Medical Society, Jan., 1877)* answers this question, as follows:

1. Zinc arrows should be used when the disease—especially malignant disease—cannot be taken away clean by the knife,

more particularly if there is a fetid discharge from an open sore, with hemorrhage and pain, which is gradually wearing out the patient's strength, as in uterine and other cancers.

2. If the tumor has more width than thickness, involves the integuments, is ulcerated upon its surface, is situated at the bottom of an old wound and fixed, as it were, against the bones; if, in a word, it is not possible to remove the disease without causing considerable loss of integument, then the caustic should be preferred.

3. In those patients who absolutely refuse extirpation by the knife, the use of caustic arrows is admissible, even though the skin is sound and the tumor movable and can be removed by the scalpel so as to leave a wound whose edges can be more or less approximated.

4. When erysipelas, pyæmia, septicæmia or puerperal fever are prevalent, especially in hospitals, operations should be done with caustic arrows, in preference to the knife, in suitable cases.

5. Cauterization, practiced as here described, is entitled to occupy a prominent place among our surgical resources.

The arrows have the following composition: Chloride of zinc, one part; wheat flour, three parts, and water to make a paste. The paste is made into cakes, and from this arrows of any desired shape are formed.

These arrows are introduced into the substance of the tissue to be destroyed.

SPLENOTOMY—RECOVERY.—M. Pean *(Lancet, Dec., 1876)* Surgeon to the St. Louis Hospital, Paris, gives the notes of a case of this kind, which brings the total number of splenotomies upon record up to six. Four cases belong to Mm. Kuehler, Spencer Wells and Koeberle, all of which were fatal; the two remaining cases were operated upon by M. Pean, and, strange to say, were completely successful.

POPLITEAL ANEURISM—APPLICATION OF ESMARCH'S BANDAGE—CURE.—Mr. Wagstaff, of St. Thomas' Hospital, *(Lancet, Dec., '76)*, reports the second case of recovery from aneurism by the application of the above bandage. It was applied tightly over foot and leg up to the lower border of the popliteal space, carried lightly over the tumor (cotton-wool intervening), and then continued tightly over the thigh to three inches and a half of Poupart's ligament. No elastic ligature was used. Bandage remained *in situ* for one hour, then a tourniquet was placed on the femoral artery, and the former was removed. After an hour, on raising the tourniquet, no pulsation could be detected, but it was thought advisable to continue the complete pressure for five hours more, and the incomplete for the twelve succeeding ones. A week later the aneurism remained only as a solid lump in the popliteal space. It remains a question, whether the same treatment would be as successful in large, thinly-coated aneurisms?

CONTINUOUS GALVANIC CURRENT—ITS INFLUENCE ON NEW FORMATIONS.—Dr. E. Polikowsky *(Russian Med. Jour.—Med. Times*, Dec. 23, '76) has investigated the action of the galvanic current on animals affected with cancer and sarcoma. The author determined the exact histological character of the swelling before the seance, immediately after it, and after the lapse of some days. The strength of the current was measured by the galvanometer, and the duration of the seance twenty minutes. He found that:

1. A weak current (galvanometer 5° to 10°) produced at the places of application of the electrodes a compression of the small vessels, obliteration of the capillaries, and a small amount of extravasation. These phenomena disappeared in two days.

2. A stronger current (galvanometer 45°) produced a destruction of the tissue at the points of application of the electrodes. On the — pole, the destruction was soft, jelly-like, porous, mixed with bubbles of gas; on the + pole it was dry, resembling that formed by strong acid. The current only destroyed the swelling at the points of application of the electrodes, and stopped the circulation of the blood within the limits of the action of the current. The tissue, losing its supply of blood, undergoes retrogressive changes, degeneration, and coll-

oid metamorphosis. Thus, a weak current produces no change in either cancer or sarcoma; a strong current destroys both swellings.

Fracture of the Spine, Followed by Recovery.—M. E. Jackson (*Med. Times*, Dec. 23, '76) gives a very complete history of recovery from fracture of the spine. The subject was injured twenty-six years ago. Motion was lost, but not sensation or control of the sphincters. In a month from the time of injury the man went on crutches, and began to earn his living, which he continued to do until the time of his death. Mr. Jackson kept a strict watch upon him—or his spine—and finally secured it. Careful examination showed that two lumbar vertebræ had been extensively damaged, there having been both fracture and dislocation. A large mass of new bone had been thrown out by the damaged vertebræ, so as to solder the fractured ends together. The union was strong and solid, but there was some twisting of the bodies of the vertebræ, which caused his caused his gait to be unsteady. Not only had the reparative process gone on from the periosteum of the fractured vertebræ, but spiculæ of bone were thrown out from the neighboring vertebræ above and below. The spinal canal was not much narrowed. There was also some injury to two cervical verterbræ, which were firmly united, without any displacement. The specimens are now in the Museum of the College of Surgeons. Dr. Jackson certainly exhibited great perseverence in watching the specimen for twenty-six years.

Abscesses Treated by Hyperdistention with Carbolized Water.—Mr. G. W. Callender (*Brit. Med. Jour.*, Nov. 4, '76) says that the presence of septa in abscesses renders ineffectual their washing by the usual method. To obviate this difficulty, he advocates the hyperdistention of such abscess sacs by forcing into them carbolized water. Three cases are described, in all of which hyperdistention was most beneficial—one of angular curvature of the spine, one of disease of the lumbar vertebræ, and a third of renal calculus.

Obstetrics.

PUERPERAL GLYCOSURIA.—(M. Guebler. *Le Progres Medicale*, Nov. 18. *Med. and Surg. Repor.*, Jan. 20, 1877.)

1. Saccharine urine follows suspension of lactation in healthy women, from diseases of the infant, and when lactation is arrested from some slight ailment of the mother, but not if her disease be a severe one,—*e. g.*, typhoid fever.
2. The glycosuria can be prevented by slight purgation.
3. It is never very marked, but can be detected by the usual reagents.
4. Albuminuria is absent.
5. It continues for about a week.

GLYCOSURIA IN LACTATION (*Gaz. Hebdom. Pac. Med. and Surg. Jour.*, Jan., 1877.)—When the sugar formed in the gland during lactation is not passed from the nipple it is eliminated in the urine. This fact explains the common occurrence of sugar in the urine of nurses.

SYPHILIS IN PREGNANT WOMEN (Darrosky. Memorabilien, 1866, No. 10. *Chicago Med. Journal*, 1877.)—The author by no means advocates the heroic treatment of diseases occurring during the period of pregnancy, but he teaches that an exception should be made in the case of syphilis. He recommends the inunction cure, judiciously but energetically pursued, in order that salivation may be avoided, and administers internally at the same time potassium iodide. The mercurial ointment, in half drachm doses, must be rubbed in daily, chlorate of potash gargles employed, and the greatest attention paid to scrupulous cleanliness and the good ventilation of the patient's apartment. With such care, he does not hesitate to institute the treatment even in the last month of pregnancy.

IS SYPHILIS TRANSMISSIBLE BY MILK?—(*Petersb. Med. Wochensehr. in Centralblatt*, No. 44. *Canada Med. and Surg. Journal*, Jan., 1877.)—R. Voss inoculated three prostitutes by the hypodermic injection of milk taken by pressure from the uninjured breasts of a woman suffering from a papular syphilide and condylomata of the genitals and anus. The injection in all caused an inflammatory swelling which suppurated and healed, but in the second patient there appeared, forty days after the inoculation, a papular eruption around the point of injection, which, in a few days, spread over the remainder of the body, and was combined with swelling of the lymphatic glands. Under the inunction treatment the symptoms disappeared.

Editorial.

NOTICE TO CORRESPONDENTS, ETC.—Communications intended for publication, and books for review, should be addressed to "Editors of Detroit Medical Journal, care of E. B. Smith & Co., Detroit."

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Original Articles, Reports of Medical Societies, Observations, Correspondence, News, etc., of general interest, are respectfully solicited from every source. Articles should be practical and carefully prepared.

The Editors will not be responsible for statements made over the names of contributors.

Consanguineous Marriages.

A bill now pending before our State Legislature, and which has, indeed, already passed one branch of that body, has, as one of its provisions, a clause prohibiting the marriage of cousins. As might have been expected in a community in which marriages of this nature have not only been permitted, but in which a goodly number have been consummated, the bill has aroused no inconsiderable comment, and in some instances, decided opposition. The secular press has taken hold of the subject, and the public have been treated, as a necessary consequence, to a variety of very learned, as well as unlearned, opinions regarding it. While no one will question the right or duty of legislatures to deal with questions of this nature, all have a right to demand that any action taken shall be intelligent action, and such as experience and facts and scientific thought will endorse. The bill now pending, we will suggest, touches a question upon which much thought has been expended by men whose scientific attainments would seem to peculiarly fit them for its consideration, but with a very negative result, so far as a satisfactory solution of the matter is concerned. This single fact would seem to justify the suspicion that our Solons at Lansing have undertaken a matter whose consideration is apt to lead them beyond their depth, and that if they attempt its intelligent solution they will soon find themselves floundering beyond hope of regaining *terra firma.*

There is, however, one argument upon which the supporters of the bill dwell with considerable pertinacity and unction, and that is the statistical argument. It is upon this point that we would offer a few suggestions, with a view to showing its fallacy, so far as the question under consideration is concerned. These statistics are appealed to for the purpose of proving that the offspring of blood relations are peculiarly prone to certain nervous disorders, among which are notably deaf-mutism and idiocy. We will admit, for the sake of argument, that disorders of this nature are more frequent among such offspring than among those of parents not allied by blood, although that such is really the case is by no means proven. It by no means follows, however, that such untoward results are attributable to consanguinity *per se*, on the part of the parents. If individual cases are investigated they will be found, in the majority of instances, to result in conformity to a law into which the question of consanguinity does not enter. It has been truly said that "consanguinity intensifies heredity," and it is only in so far as it does this that it is a source of evil to the offspring. In so far as *both* parents manifest a constitutional dyscrasia is that dyscrasia prone to be intensified in the offspring. This fact obtains, however, with equal force, whether or not the parents are consanguineous, and blood relations who may marry run only this additional risk, that constitutional tendencies to any vice are more apt to be concurrent in them than in others.

The statistics at our disposal are defective, in that no notice is taken of this concurrent predisposition on the part of parents. Were it eliminated in investigating the percentage of deaf mutes and idiots, it would be found that the offspring of consanguineous marriages are no more prone than others to the deplorable consequences which have been charged upon them.

It will be seen from this that any evil consequences which result, do so in conformity to a law which, if intelligently regarded, would be the most cogent argument possible in favor of the marriages which our Legislature would interdict. Our fancy stock raisers recognize it in their "in and in" breeding, and, by a judicious mating of animals in which the features they wish to propagate and exaggerate concur, they have succeeded in giving to us magnificent specimens in direct lineage with the very inferior stock from which they started.

Aside, therefore, from strictly moral grounds, it would be more consistent on the part of our Legislature, because more in conformity with science, for them to commend for its possible good, than to condemn for its accidental evil results, the intermarriage of cousins.

It is a matter of wonder, we may remark by the way, considering the hap-hazard manner in which marriages are made, that society is not afflicted with a larger crop of vicious persons than actually exists. If our Solons would do a really good work, let them devise some means whereby the lower and vicious classes may be prevented from propagating an offspring in whom the tendency to crime is aggravated, in conformity with the law above enunciated, with each generation.

This is a subject which, difficult though it may be, could be grappled more intelligently and with better promise of result than that on which they are now bringing their wisdom to bear.

Until science is able to furnish more data than are yet in our possession, we should advise our Legislature to leave the question of the marriage of cousins severely alone.

J. J. M.

A Young Mother.

An esteemed and entirely trustworthy correspondent has furnished us with the following facts touching a case which came under his observation. As an instance of early maternity, the case is one which certainly vies with any case on record:

The girl first menstruated when ten years and six months of age. She became pregnant at eleven years and six months, and was safely delivered of a male child January 19th, 1875. The reputed father of the child was, at the time, a hopeful of fourteen years of age. The child is still alive, but not very strong or bright, although the promising parents are doing as well as could be expected.

Memoranda.

Dried eggs are used in the Bavarian army as an article of food.

Albany Medical College graduated a class of thirty-eight, Jan. 31, '77.

The French Pharmacopœia requires that all medicinal substances be weighed in the preparation of prescriptions.

Dr. Warlomont, of Brussels, states that, out of more than ten thousand children vaccinated with animal virus, not one was attacked with small-pox during the severe epidemic of 1870.

In November last the "Medical Society of London" unanimously resolved "to exclude persons of the female sex from either becoming fellows of the society, or from being introduced to it as visitors."

London is threatened with a severe small-pox epidemic. To encourage re-vaccination among her subjects, the Queen has caused all members of her household to be re-vaccinated, and the fact to be published by the press.

Dr. H. A. Martin (Bost. Med. Jour., Feb. 1, '77,) says that, during the sixteen years in which he supplied humanized vaccine virus, he was continually troubled by the complication of erysipelas. Since he has supplied only the bovine virus he has had no complaint of erysipelas.

Sir Wm. Ferguson died Feb 11. He was born March 20, 1808; began to lecture on surgery in 1831; was appointed Professor of Surgery, in 1840, at King's College, London; was elected President of the Royal College of Surgeons in 1870. By his special papers and medical works, he is well known to the entire profession.

Dr. Pavy, from observations on Weston during his pedestrian feats in London, has found that during muscular exercise there is an increase of urea excreted. This increase, however, is inadequate to account for the work done. It simply accounts tor the wear of muscular tissue. The work done represents the oxidation of carbo-hydrates and the production of carbolic acid and water. It will be remembered that Dr. A. Flint, from observations on Weston, some years since, reached conclusions supporting the doctrine of Liebig, that force—muscular, nervous, etc., results from the disintegration of the particular tissue in action. Flint and Pavy both found increase of urea during muscular exercise. The former maintained that this increase represented a force equal to the work performed; the latter maintains that this increase only accounts for the wear of muscular tissue. From a careful study of both series of observations, we think that Pavy is correct.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN By Louis A. Duhring, M. D. Cloth; pages, 600. 1876. Philadelphia: J. B. Lippincott & Co.

The author, in his preface, states that "his aim has been to write a concise, practical, and useful treatise; not exhaustive, yet sufficient to afford a clear insight into the elements of dermatology, and a knowledge of all the important facts in connection with each disease treated of." Questions of theory, the discussion of unsettled points, and useless or obsolete terms, have all been avoided, nor is the literature of dermatology dwelt upon. The classification adopted is that of Hebra. Diseases are defined mostly from the clinical stand-point, and consist mainly of descriptions of the characteristic lesions and symptoms.

In size the work is one third larger than that of Piffard, diet is given the first place. Attention is directed to other hygienic conditions, and all the usual remedies. The physician who reads this chapter and still affirms that he knows nothing of eczema, must be an imbecile, and had better change his business.

In conclusion, we must say that it is a thoroughly good book, and admirably adapted to meet the wants of those for whom it was designed. As such it will facilitate the study of dermatology by medical students and practitioners by teaching them how to observe pathological processes with their special senses, and how to treat these processes on the same general principles that govern the same processes in other organs.

L. C.

MENTAL POWERS OF INSECTS. By A. S. Packard, Jr.

This is the twelfth number of "Half Hour Recreations in Natural History." It contains thirty-six pages, well printed on good paper. The author shows that insects have sensibilities, intellect and will. Besides, they are able to so combine these primary elements of mind as to produce secondary and complicated mental operations. Thus they can communicate ideas one to another—are educated—bees ventilate their hives by fanning their wings. The instincts of the present generation are regarded as the sum total of the inherited mental experiences of former generations.

If other parts of this publication are as interesting as the one before us, they well merit a liberal patronage.

EMMONS' ANNUAL MEDICAL DIRECTORY OF THE REGULAR PHYSICIANS OF THE STATE OF ILLINOIS. 1877.

The physicians are classified in one list alphabetically by their names, and in another list alphabetically by the towns in which they reside. Thus it is easy to find a given name or residence, or one from the other. A record also is given of the different County Associations in the State. Altogether, it is a useful work for all who desire to communicate with the physicians of Illinois.

Meteorological Report for January, 1877.

BY C. HENRI LEONARD, M. D., OBSERVER FOR STATE BOARD OF HEALTH.

BAROMETER.—Highest, 30.537; lowest, 29.473; mean, 30.097; range, 1.064.

THERMOMETER.—Highest, 48 (this was on the 31st, and the highest since Nov. 13, 1876); lowest, —5 (this was on the 9th); mean, 20.3; range, 53. The mean temperature is the coldest recorded since 1871, save that of 1875, although the minimum temperature was less than in '76, '75 and '73. The mean temperature for January, 1872, was 23; for '73, was 20.5; for '74, was 28.9; for '75, was 15.3; for '76, was 32.4. The maximum in these years was, respectively, 37°, 54°, 58°, 41°, 65°; the minimum, 3°, —12°, 0, (zero), —15°, 9°. Hence, it has been an unusually cold January.

WINDS—The prevailing direction has been S. W.; corresponding to that of 3 out of the last 5 Januarys. The maximum velocity has been only 20 miles per hour—less than in any preceding January. The total number of miles traveled has been 4, 357—less, by from 1,000 to 3,000 miles, than that of preceding Januarys On one day, the 6th, "calms" were noted at *each* observation. The total number of miles traveled during the day was but 23. "Calms" were also noted at the morning and evening observations on the 5th, at the 2 p. m. observation of the 1st, and at the 9 p. m. observations of the 14th and 18th. On the whole, it has been an unusually "calmy" month.

CLOUDS—No. of clear days, 7; 8 fair ones; 16 cloudy, and 16 rainy or snowy. In '72, there were 7 stormy days; in '73, 13; in '74, 23; in '75, 18; in '76, 19.

RAINFALL.—Total precipitation, 1.23 inches. Greatest daily fall, .47 inches (this was on the 11th). It has been, comparatively, a *dry* month, the common asseverations of "unparalleled sleighing" to the contrary notwithstanding. The temperature has been so equable that the snow simply "accumulated," and so led to this erroneous belief. In '72 we had

1.05 inches; in '73, 3.20 inches; in '74, 5.16 inches; in '75, 0.97 inches; in '76, 2.00 inches. In '74 we had almost *five times* the amount of total precipitation.

MOISTURE.—The maximum amount present was at the 2 p. m. observation of the 31st; there was then present 2.60 grains to each cubic foot of air. At many observations there was so little present as to be absolutely incomputable, although the *relative* humidity stood high on the same dates. For instance, on the 9th and 12th the relative was over 75 per cent., yet the *absolute* was so small that no computation could be made, thus giving a practical example of my assertion of several months ago, that the prevailing summer complaints of children had *nothing* to do with the relative humidity, as that could be very high, and yet the amount of vapor would really be trifling; that it was the *absolute* humidity that seemed to mark the onset of the disease. In our summer months it runs as high as 7 grains per cubic foot of air, a decided increase of pressure to the human body. The coming summer will be one of unusual interest to me, as I have this theory of mine pretty well worked out. and am only waiting for fuller confirmation. I have, for some time, been at work upon the New York City and Philadelphia observations during the "heated term" of last year, and only find myself supported in my statements, made before, "that the *absolute humidity* controls our epidemic summer complaints of children."

OZONE.—Present on most days of the month. The maximum coloration was on the 2d, morning observation. It was then 2 of the scale. The same was also reached on the 9th and 14th.

FROSTS occurred on the 17th, 28th, 29th and 30th.

FOGS occurred on the 17th, 18th, and 30th.

LUNAR HALOS, 22° radius, on the 21st and 30th.

Detroit Medical Journal.

NEW SERIES. VOL. I. | APRIL, 1877. | NO. 4.

Original Communications.

The Medical Profession—Its Aim and Method.

ADDRESS AT THE COMMENCEMENT OF THE DETROIT MEDICAL COLLEGE, BY LEARTUS CONNOR, M. D., DETROIT, MICH.

GENTLEMEN OF THE GRADUATING CLASS:—With the reception of your diplomas you have entered the medical profession. Since choosing your vocation you have steadily looked forward to this hour, and shaped your lives accordingly. The hope of reaching it has incited you to patient, persevering industry in the chemical, physiological, and anatomical laboratories, in lecture and clinic rooms, by the bedside of the sick, and in your private study.

Allow me to congratulate you upon your success, and to cordially welcome you into the ranks of the medical profession. Henceforth your relations to your fellows will be markedly different. Your Alma Mater, the medical profession at large, and the people will now estimate you from another standpoint. You have been medical students, but hereafter you must add to your labors, as students, those of medical practitioners. Severe as have been the examinations necessary to attain your degree, more severe ones await you at the hands of the general profession and laity. Should you be successful in this last crucial trial, your right to be medical practitioners cannot be gainsayed, and you will proudly take your place among the world's best workers.

The degree of your *success* will mainly depend upon your individual characters—your *real* selves. Each can forecast his own future, in practice, by an examination of his past daily life. What you have done is a prophecy of what you will do. "In the future, the time, the place, the work, and its responsibilities will change, but each nature remains the same, except in so far as it may change itself."

Being now united to the medical profession, its interests should be your interests, and its honor your honor. Receiving from it the vast accumulations of more than three thousand years, you will seek to increase them by faithful observation, diligent study, and vigorous thought.

Unless you love your profession, for itself, more than any other earthly thing or pursuit, you will fail of meeting your obligations to it. But possessing an untiring devotion, unwearied industry, and perennial good sense, you can scarcely fail of a useful and honorable career, and a life fraught with a perpetual blessing to the communities whom you shall serve.

LADIES AND GENTLEMEN :—Not least among current errors is the popular estimate of the medical profession. Should we seek reasons for the existence of this error, we find them somewhat as follows:

First.—Hitherto the medical profession has usually dealt with individuals, one by one. Unlike the lawyer or minister, the physician has been unable to impress his distinctive character upon thousands at a single effort.

Second.—The peculiar nature of professional knowledge is such, that its popular recital was simply absurd. Gentlemanly honor and the professional vow effectually concealed part of his knowledge. Other parts were so complicated that none could understand them without a technical education.

Third.—From its constant and oft-times rapid development, the medical profession of each generation materially differs from that of any previous generation. Obviously it were unfair to judge one age by the standards of a previous age. Yet, owing to considerations just mentioned, the profession of to-day is popularly judged by standards either obsolete or otherwise incorrect.

Fourth.—Human bodies have been lightly prized as compared with money, lands, houses, stocks, political, scholastic or social honor.

For these, and other causes, the medical profession of to-day is popularly estimated from very incomplete and imperfect data. Hence we deem it not inappropriate to consider, on this anniversary day, one or two of its leading characteristics.

First.—What is its aim? To heal the sick is the usual reply. This is truth, but far from the whole truth. It is true that the medical profession persistently and devotedly makes the blind to see, the lame to walk, calms the raging fever, quickens the flagging pulse, soothes the aching brain, drives away pain and anguish, ushering in a healthy, happy life. But it is equally true that the medical profession prevents the occurrence of blindness, lameness, fevers, pains and aches. Even more and greater than this, the medical profession is wresting from nature the knowledge of those conditions and forces which can promote the highest development of man's moral, intellectual, and physical nature. During the past, man's bodily development, in so far as he was concerned, has gone on irregularly and blindly. But the time has come for mankind to realize that it has an enormous power over its own destiny, and that this power should be used intelligently, and with conscious purpose. Briefly stated, the *aim* of the medical profession "is to promote the *bodily well being* of every man, woman or child that it can reach, directly or indirectly."

During the ages prior to any written history of the profession, one man served as priest, lawyer and doctor. To him was committed all that pertained to the soul, body, and social relations of man. History tells us that he was most engrossed in care for the soul, less in care for the legal relations of men, and least in care for the body. It is impossible to fix upon the exact days when theology, law, and medicine were allotted to different persons. We do know that all matters pertaining to the human organism were referred to the department of medicine, and that the persons serving in this department were called physicians. Thus, at its very birth, the aim of the medical profession was to promote the interests of the human body.

With such an exalted and practical aim, why did not the medical profession at once attain a power and influence equal to that of the other professions? In considering this question, it must not be forgotten that theology and law came to man as a direct revelation from God. The former admitted of no addition, subtraction or alteration—the latter was variously modified in an infinite variety of ways, to suit particular ages or nations. In marked contrast with these, medical science came not by a divine relation, but by brain and muscle work. Every part of it bears the impress of human self-sacrifice—a sacrifice of time, of ease, of fame, of friends, of wealth—a sacrifice accompanied with a sweating brow, an aching brain, and oft-times sealed by an untimely death.

Again, law and theology have always been more or less duly recognized and supported by the State. Scientific medicine, on the contrary, has only at rare intervals received a similar aid and encouragement.

From these facts it is easy to see why, for ages, the medical profession exerted, relatively, but little influence. Unlike its big brothers, law and theology, it was born on the earth a baby, instead of a full-grown man. But, with the lapse of centuries, we see a gradual change. Theology and law are still powerful in their respective spheres, but medicine has grown to be a big boy also, and the indications point to a near future when medical science shall exert an influence equal, if not superior, to the others. Now, and hereafter, healthy bodies will be increasingly regarded as the condition most needful for soul growth, for the performance of social duties, for making money, for ascending the ladder of fame—in short, for best accomplishing the work of life. Individual, family, or national prosperity will seem to rest upon *such bodies*. Just as this apparently self-evident truth is practically believed, so will the medical profession be called to the *front.*

A lesson from Roman history may make this point clearer. During the first six hundred years of its existence, educated physicians were excluded from Rome. Neither the State nor the people cultivated or recognized scientific medicine. This policy was attended by the prevalence of terrible epidemics and pestilences, and the outrages of charlatans. Such a state of things at last became so intolerable that the people demanded competent protectors. Graduates of reliable medical schools were now invited to Rome and installed in places of honor and responsibility. They were well paid, and were required to investigate the causes of diseases, and devise measures for their prevention. How well these physicians served the people we may learn from the remains of aqueducts, which, from distant sources, supplied the towns with pure water from the well-constructed sewers and drains—from the public baths and the street pavement. While Rome encouraged and supported scientific medicine its material prosperity was highest. So, too, a time will come when the American people will see *their* need of highly educated physicians. In the interests of humanity, we may hope that their eyes may be opened ere the death angel shall strike down the first born in every household.

But, says one, is not the medical profession devoted to the administration of pills, powders, nauseous mixtures—to bone-sawing and promiscuous carving of the human body?

Never was a partial truth more misleading than the one involved in this question. It is, indeed, true, that in the furtherance of their practical work physicians are forced to give medicines, and to sever the dead and dying tissues from the living. It is true that, from a variety of causes, the giving of medicines has been made so prominent as to greatly obscure, if not absolutely hide, all other medical work. The fact is, that usually, in the treatment of disease the drugs used are far less important than the *intelligent regulation* of all the *conditions* of *health.* This latter not only promotes recovery, but it also tends to prevent a recurrence of disease, and to develop a stronger and better life.

Incidentally permit me to remark, that the partial truth just mentioned has, in its working aspects, been terribly disastrous to the people at large. Believing that the chief virtue of the doctor was vested in the medicine given, the people have tried to be their own doctors. Various designing persons have stimulated these efforts, by flooding the country with patent medicines and vaunting specifics for "all the ills flesh is heir to." What are the results? Infants, dosed with soothing syrups and cordials, have prematurely gone to that better land, into which we confidently hope "that Mrs. Winslow's soothing syrup and other similar compounds may never enter." Other infants, escaping death from this dosage, suffer such changes of brain cells as to grow up with imperfectly developed bodies, to people our reform schools, jails, and idiot asylums. Adults, suffering from indigestion, seek relief in some of the bad whisky compounds called bitters. As these speedily fail to satisfy the newly found appetite for alcohol, stronger drinks are substituted, until at last a drunkard's grave, or a felon's cell, closes the scene. The evidence is overwhelming, that in this way millions have died, and tens of millions of parents and children have been reduced to abject poverty, and oft-times to a life of crime, misery or shame.

So, too, opium and other narcotics are taken by thousands on their own responsibility, to relieve trifling pains or discomfort. Once fairly started, the habit continues, until the structure of the body is so changed that existence is well-nigh impossible without the daily potion of poison. To earnest temperance reformers, let me suggest, that in no way can you do more effective service than by creating such a public sentiment as would forbid all use of drugs, except as ordered by competent physicians. I am convinced, that in the United States more deaths are caused through the self-prescription of medicines, by the laity, than by direct violence. The country is inexpressibly shocked when three hundred of its citizens are burned in a single night, but it has no words of sympathy or prayer for the tens of thousands of deaths resulting from the *ignorant* use of medicines by the laity. Medicines like steam, electricity, powder or nitro-glycerine are agents efficient for good, if used with proper *care*, knowledge, and skill; but they are also agents of destruction to those who employ them without the aid of proper care, knowledge and skill.

Second.—How does the medical profession promote the welfare of human bodies? By the practical application to these bodies, of all discoveries in the arts or sciences.

Very early in human history it was observed that the human body depended on a vast variety of conditions, materials, and forces. In a very real sense man was found to be a little world, containing within himself the forces and elements observed in the larger world about him. Thus, in his study of man, the physician has ever been referred back to the outside world; to its waters, with their laws; its gases, with their laws; its rocks and soils, its plants and animals, its forces of gravitation, adhesion, cohesion, repulsion, of light, heat, and electricity. Thus the natural sciences and the knowledge of man's body have kept pace with each other.

On the other hand, the body was seen to be profoundly modified by mental or religious activities. This fact forced the medical profession to investigate mental and moral sciences, and to appropriate all that would enable it to better care for the body.

The systematic study of mind is very old. Philosophers tell us that mind is a unit capable of manifesting itself as thought, feeling, and will. Its various subdivisions do not concern us now. But, as guardians of the body, physicians observed that its condition was very different, as different parts of the mind were active. Sometimes the bodily health was improved, and at other times injured; now certain processes were stopped, and now others were exaggerated. So, too, in sickness, certain mental states promoted recovery, while others unmistakably tended to bring about a fatal result. Thus great fear lowers the pulse and bodily temperature, retards the respiration, and absolutely stops the digestive processes. It concentrates blood in one part of the body, depriving other parts of their needed supply. If long continued, great fear or other depressing emotions produce death, from starvation or some disease due to malnutrition. On the contrary, hope and joy increase the force of the heart's action, the number and fullness of the respiration, the bodily temperature, and all the digestive processes.

Thought continuously directed for a long time, to any one part of the body, produces profound disturbance in that part, as evidenced by increased nutrition, temperature, and blood supply. Thus many have become dyspeptic, contracted heart disease, lung troubles and brain disorders from continuously thinking of these organs. Undoubted evidence has demonstrated that if the entire power of the mind be so directed as to expect a certain activity of any organ, then that organ will act. Persons have died or lived simply because the entire force of their minds was concentrated upon living or dying. Concerning the influence of anger, sorrow, hate, envy, and other feelings, and the infinite variety of thoughts, I cannot now speak. Suffice it to say that each has some influence for good or ill in both health and disease. Many of these mental or emotional states are practically utilized by the physician in preventing or curing disease, or promoting a higher bodily development. The true physician, by his very presence, is often able to drive away fear and worry and to restore hope and trust. This presence is something very real in its effects, quite as much so as the most powerful remedies. The temperature is rendered more natural, the circulation improved and equalized, the respiration is more efficient, and all other physiological processes restored to a more natural state—in short, the whole body is profoundly turned toward health. Having confidence in his physician's knowledge and judgment, and accepting his statement that "all will be well," the patient directs his mind, or nerve power upon returning health, and the means for its attainment. Thus he at once passes from a state of extreme peril to one of relative safety, and most favorable to a speedy recovery.

Natural philosophy has contributed much to the prosperity of the race. Not least important are the applications of its laws by the medical profession to the interests of the human body. Thus the laws of fluids, of solids, and of gases interpret many intricate phenomena connected with the blood and lymph, with the formation and movements of saliva, gastric juice, bile, pancreatic, intestinal, and intra-muscular juices, with all the so-called digestive processes, with the action of the heart, lungs, bones, and other organs. Mechanical laws explain the movements of the joints, the power of muscles, ligaments, tendons, the processes of walking, jumping, and all the varied bodily activities. They are the foundation of all methods of reducing dislocated limbs, for all treatment of fractures, and for the performance of most surgical operations.

By the use of optical laws, the phenomena of sight are explained, and methods for its preservation or restoration are suggested, such as surgical operations, the use of glasses, or other measures.

Laws of sound, as applied by the practical physician, indicate the means needed to preserve or restore the sense of hearing. They enable him to accurately determine the exact condition of the heart, lungs, and other internal organs. With this knowledge as a standard, intelligent measures are adopted to ward off threatened danger or rescue from actual destruction.

Laws of heat being established, the profession applies them to the study of the human body. Laborious investigations enable it to determine its exact temperature, the variations of heat under different conditions, in different parts of the body. Similar observations are made in various diseases, until each can be recognized by the range of the thermometer. Other observations show that beyond a certain limit, a high or low temperature is fatal. To obviate this undue variation, another series of observations are undertaken with a variety of conditions and remedies, until for each disease the best method for preserving a proper, living temperature is obtained. But aside from their applications to the treatment of disease, the laws of heat have even more important uses in its prevention. To illustrate—careful study has proved that children cannot endure temperatures so high or low as adults. The medical profession has done what it could to induce parents and guardians to so clothe and otherwise protect the young, as to cheat the reaper, Death, of his harvest of helpless infants. The relation of bodily heat to foods, drink, exercise, to birth, growth, development, and the various exigencies of life, is of the utmost importance. By investigating these, and in a thousand other ways, the profession has utilized the laws of heat, that the human body might not suffer harm.

Laws of electricity have been applied with brilliant results to the promotion of man's bodily well being. By their aid, our knowledge of the labyrinthine systems of nerve cells and fibres has been greatly enlarged. On this knowledge are founded more rational methods for relieving numerous morbid states. On this knowledge the effects of mental, moral, and so-called spiritual forces are more clearly made manifest. Besides its use in physiology, pathology and therapeutics, electricity is rendering invaluable service to the study of a thousand intricate problems associated with climates. By the telegraph, alone, was it possible to know what was transpiring in places distant a thousand miles at the same time. Now we are able to take observations at many widely separated places at the identical minute. These observations reveal to us the force, frequency, temperature and direction of the air currents; the relative quantity of oxygen, nitrogen, moisture, and various foreign substances in the air. By adding these facts to those obtained from other sources, sufficient data will be accumulated to enable the profession, with absolute certainty, to select, for persons of peculiar constitution, or affected with certain diseases, a place in which they may live out the full time allotted to man. In this way thousands of years will be added to the aggregate of human lives.

The microscope was discovered early in the seventeenth century. Almost its first work was to enable Malpighi to complete the discovery of the circulation, by demonstrating the passage of the blood corpuscles through the capillaries of a frog's foot. From then until now by far the most valuable results gained through this instrument relate to the human body. Thus the profession has accurately described every particle of living and structural matter, solid or fluid, until it may be fairly said that elements, larger than $\frac{1}{4000}$th of an inch in diameter, are as familiarly known as children are by their parents. Further, the behavior of these tiny bodies under a variety of conditions, has been carefully studied. With this knowledge as a standard, diseased processes are being unraveled, and the real effects upon the body, of foods, air, light, heat, cold, work—muscular or mental—and of different medicinal agents, are being gradually made known. I need not say that by the microscope the profession has ascertained that many severe and deadly diseases took their origin in various little parasites—that the conditions of life in these parasites were ascertained, and that they and their diseases are being rapidly exterminated. Thus the heinous and terrible splenic disease of Europe, and numerous skin affections, are being gradually wiped out of existence.

As an independent science, chemistry is of modern origin. But it has always been vitally related to the medical profession. If possible, its discoveries have been utilized by the profession even more than those of physics. Thus the discovery of oxygen, by Priestly, was instantly applied to the study of the respiratory processes. The discovery of the chemical balance opened an era as new and important in medicine as in the arts and abstract sciences. By its aid the elements of the body were weighed; the composition of different tissues and fluids was mathematically determined. By it we are analyzing the various products of digestion, the different excretions and secretions, foods, drinks, air and medicines. The changes of these, in their passage through the body, and of the body itself during their passage, are still being investigated. A similar analysis is being made of the different constituent elements of the body during various diseases. Although still incomplete, results of vast importance have been gained by these researches.

In like manner chemistry discovers new elements or combinations of elements, new forces, or new conditions for modifying the relations of elements or forces, so the medical profession applies these facts to the unraveling of vital processes.

As the chemical arts produce better metals and vulcanize rubber, the medical profession utilize them in devising new or better mechanical appliances and instruments.

As chemistry discovers and isolates the active principles of various medicinal substances, physicians are enabled so to administer most remedies as not to offend the most fastidious palate. Time fails me to even allude to the uses made of photography, of light, of water—in its myriads of forms—of combustion, of fermentation and putrefaction, of the laws of the correlation of forces, of mathematics, of zoology, of botany, of physical geography, of geology, and other departments of natural history.

Is the process of printing discovered, true to its instincts the medical profession publishes all its knowledge for the benefit of its individual members. It writes books by the thousand to instruct in the art of so living as to avoid sickness and reach the greatest bodily perfection. It exerts its combined influence with ruling powers, to remove the causes or conditions of pestilences and untimely death. It proclaims the laws of heredity, proving that insanity, consumption, and other constitutional disorders are transmitted from generation to generation. It shows how these diseases might all be swept from the earth, if two or three generations would but exercise an intelligent self-denial.

Not only does the profession draw material from the sciences and arts for promoting the well-being of the human body, but from almost every thing besides. Thus war is made to contribute its mite. The medical and surgical history of the war of the rebellion, and the reports of the Provost Marshal's office, are the admiration of the medical world. These records will remain to promote the welfare of future generations, when all else pertaining to the war shall have been forgotten. As the bee gathers honey from every flower, so there is no disease so loathsome, there is no place so vile, but that the profession does not gather something to aid in the redemption of the race from suffering.

Regarding the body as God's temple, the medical profession is its appointed superintendent and keeper. It alone can properly estimate the best locality in which to build, the best materials from which to fashion it, the special care needed at different stages of its erection, the means by which defective materials shall be so placed that the building may attain the greatest possible solidity, utility and beauty. After the building is fairly completed, the medical profession keeps unceasing watch, lest floods, storms, and its thousand foes, compass its premature destruction. Broken windows, decayed frames, seared doors, and bad drainage must be quickly and safely repaired that the regular temple service may suffer the least possible interruption. And when at last the temple has accomplished its end, and the entire structure begins to crumble and totter, the medical profession seeks to so regulate the condition of its fall, that the evil hour may be deferred to the farthest limit, and that other adjacent structures may not be injured thereby.

Did time permit, I would like to show, that in its great work the medical profession has attained wonderful results. A single illustration must suffice. Mr. William Farr, of England, shows that during the seventeenth century the average duration of life, in London, was twelve years. During the eighteenth century, it was twenty years, whereas now it is about forty years. Thus twenty-eight years have been added to the life of the average Londoner. Now, this increase of life is due to the labors of the medical profession, directly or indirectly. In other parts of Great Britain, the average life has been lengthened in proportion as the people have followed the teachings of the profession. Other countries, with histories as old as that of England, present similar facts.

Again, lives have not only been made longer, but more *efficient.* This increased efficiency is seen in brain and muscle work, in the entire body, or in each particular apparatus or special sense.

Looking at these results from a financial standpoint, who shall estimate the *money* equivalent of twenty-eight years added to the average life during half a dozen generations, and among millions of people? If to this estimate we add the *money value* of better bodies and minds, of the same persons for the same period, we should have an enormous sum. It is a fact, that the medical profession has, and is, contributing to the actual money wealth of the nations infinitely more than is usually supposed.

If the views thus briefly stated be correct, it will be admitted that –

(1) In order to heal the sick, the medical profession is forced to seek from the entire world the knowledge required for intelligent action.

(2) In order to prevent sickness, the entire world must be again overhauled, the fitting knowledge appropriated and practically applied.

(3) Its work of healing the sick is only a part of its glorious plan for wiping out all sickness, and for teaching men how they may intelligently and surely attain the highest possible perfection.

To the consummation of this plan, the medical profession will bring every material and every force existing in the known world. When it shall thus be able to command the world in the interests of human bodies, then the work will have been done. To carry out this plan most *rapidly*, the medical profession must have the support of those whom its labors are designed to benefit. It needs money for libraries, for laboratories, for apparatus, and as endowments to support special investigators.

I expect to see, in Detroit, these needs fully and liberally met by the voluntary contributions of our wealthy citizens. Such laboratories will yearly solve problems relating to human life, of incalculable benefit to our city, State, and the world. All that pertains to the human body will be subjected to the most rigorous scientific investigation. Our city will become famed, not only for its crystal river, its broad streets, its commerce, its manufactories, its home-like dwellings and its generous hospitality, but also for its hospitals, its dispensaries, its chemical, anatomical, physiological and pathological laboratories. New scientific truth shall be born here, and make Detroit a household word in every land in which human beings are loved better than gold. Our citizens being gradually delivered from the sources of disease, debility, and premature death, will be known abroad as typical men and women.

A similar work will be carried on in other cities. Nor will the medical profession ever tire in its efforts to wrest from nature all that can contribute to bodily strength, grace or beauty. The passing years will mark a gradual increase of the average life, the world over, until at last it shall be three score and ten years. These years, spent under intelligent guidance, will be full of health and vigor, a perpetual witness to the kingship of man. Should the lawyers and clergy see to it that other parts of man's nature attain a like perfection, then, indeed, the millenium will have come; man, as conqueror of the world and himself, will have returned to the land of Paradise.

Oxalate of Cerium in Nausea and Vomiting.

BY T. CURTIS SMITH, M. D., MIDDLEPORT, OHIO.

It may be needless to say anything in favor of this valuable remedy; but I have found so little mention made of it in text books and periodical literature, that I deem it not unwise to call the minds of some of the profession to it, in the treatment of the distressing symptoms named above.

It is true that it has been before the profession on the commendation of Sir. J. Y. Simpson, since 1854, and a brief notice of it is given by him in his "Obstetric Works" in which he calls it a "sedative tonic." He says, "I have employed it pretty extensively in the treatment of * * chronic intestinal eruptions, and occasionally with the most marked good effect in them, in instances that had resisted all other forms of treatment. In my own practice and in that of others, I have seen the above preparations of cerium succeed in at once allaying irritable and obstinate vomiting, after all other means had failed. Sometimes I have observed it fail, like all other remedies, in giving relief in the sickness and vomiting of pregnancy; but far more frequently I have found its employment accompanied by direct beneficial effects; and I have now repeatedly had occasion to see it both immediately and perfectly successful, in some instances where the usual succession of medicines—prussic acid, naptha, opium, bismuth, ice, etc., had all been previously and perseveringly tried in vain." (*Simpson's* Obstetric Works, vol. 1, p. 284-5. Amer. ed.)

Such a commendation coming from so high an authority, and so accurate an observer, should command our notice long enough to give the agent a thorough trial. I have not heard or read of any dissent from this opinion of oxalate of cerium in the management of the distressing nausea and vomiting that so often occur during gestation, and all authorities who mention it, commend it for this purpose. Some of our best text books fail to name it, even for this condition.

But I wish to call attention more particularly to its value in nearly all forms of nausea and vomiting; and, at this point we are left with but little published authority, as far as I can find, that either commends or condemns it.

Dr. F. K. Bailey, of Knoxville, Tenn. (*Med. and Surg. Rep.*, Jan. 9, 1875,) speaks very highly of the oxalate of cerium in the nausea and vomiting of pregnancy, and "in cases of chronic gastric affections" generally. But a more thorough presentation of its value is given by Dr. C. K. Mills, of Phila. (*See Compendium Med. Sci.*, July, 1876, p. 162.) He speaks of the almost uniform relief afforded in the nausea and vomiting of pregnancy, even in some cases where it might be denominated "grave vomiting. In some cases the benefit afforded was magically prompt. In the nausea and vomiting, and irritable stomach, so often found associated with amenorrhea, dysmenorrhea, prolapse, flexions, and other disorders of the uterus, and with hysteria dependent upon psychical and general physical causes, such as grief, care, anxiety, overwork and the like, the oxalate of cerium is one of the most efficient remedies in the materia medica." (Loc. cit.)

Some years ago it occured to me that if this agent was so valuable in the symptomatic trouble for which Simpson so very heartily commended it, and it is really a "tonic sedative," it certainly ought to be valuable in the nausea and vomiting of all forms of gastric irritability, whether resulting from dyspepsia simple irritability, chronic inflammation, or from reflex causes other than those arising from the uterus.

As we meet with nausea so frequently in practice, I was not long finding cases in which to prove or disprove this idea.

It is not my intention to give a long roll of cases. Since commencing the use of oxalate of cerium, based upon the idea above given, there is scarcely any form of nausea and vomiting from any cause, known or unknown, in which I have not tried its use. I cannot say I have found it to be uniformly successful, but it has been so, as a rule, in all cases where there was not serious organic disease of the stomach, and sometimes of value in these. In the nausea and vomiting of teething children; in those young children so often affected with diarrhœa and indigestion; in those having gastric irritability from improper food; in those suffering from acute and sub-acute gastric inflammation I have seen more benefit from this than from any other one remedy. In diseases affecting older children and adults, it has for me, done excellent service, where ever nausea or vomiting caused any trouble.

It indeed seems to act as a "tonic sedative," as it will sometimes replace nausea with a most craving appetite; and very frequently it will seem to promptly give tone and strength to the stomach Recently I gave it to a lady who was suffering from opium nausea. In a few minutes she was completely relieved, and called for, and ate a hearty supper. Strange as it might seem, subsequent doses of opium caused no nausea during her further treatment.

Without trying to specify all instances where I would commend it I hope I may be understood as giving it a general commendation for nearly all forms or causes of nausea and vomiting.

Poem Read at the Commencement of Detroit Medical College, Feb. 28th, 1877.

BY REV. C. H. W. STOCKING, D. D., RECTOR OF GRACE CHURCH.

In ages past, if history be true,
When fools were plenty, and good scholars few,
The poorest doggerel, 'tis said, with ease
A common audience was sure to please.
Not so to-night, for in my modest verse

Must be some thought, both sensible and terse.
The earliest Latin I remember, said,
A poet's always born, and can't be made.
I am no Orpheus, 'neath whose magic wand
Rivers forget to run, and wild beasts stand
Entranced, and rapt by his poetic fire,
For, as a parson, I abhor a *liar.*
I have no charming rod, or mystic wand
To move the groves, and turf the barren sand.
My only rod was that my childhood knew,
Which from the greenwood I was made to hew
For irate teachers, who could work a *spell*
From dullest heads, and wake a lusty yell.
When ancient worthies died, some prophet spoke
And said, "he died of th' Almighty stroke."
I always wondered I did not the same,
For since I had the gain, why not the fame?
Of numerous rods, I now remember best
One that, like Aaron's, swallowed all the rest.
Up from the play-ground towered its hideous head
Like spectre from the regions of the dead.
No *leaf* it had, yet had diurnal *leave*
To stir the fountains of our youthful grief.
The dismal raven on its limbs did perch,
To croak while we were raving at the birch.
To steal a thought* from poor, lamented Hood,
(A pardonable theft, because so good),
I wished, with him, that when our backs he'd strip,
He'd flog according to Italian penmanship:
The up-strokes heavy, and the down-strokes light,
That *dash* and *exclamation* might be right.
Pictures to study are a great incentive
They say. I know they made us quite attentive,
For when we got within forbidden ruts,
Our master helped us out with stirring *cuts.*
"Arma, virumque cano," it was plain

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* "Death of the Dominie."

Was my chief Latin. "Arms, a man, a cane."
My hands he flattened with such constant whack,
I'd no *Palm* Sunday in my almanack.
Yet those same hands must grasp an unskilled lute,
As to my muse I pay unwonted suit.
And should she tempt me all too high to soar,
You're close at hand to give me hellebore.

If not the clergy, whom should you invite
The dignity of your profession to recite?
For if you follow us to church and pew,
Alas! how often we must follow you!
Our twin professions by a mystic chain
Are bound; we preach, you practice oft, in *vein;*
And in our hearts flows comfort like a river,
Whenever we've reformed an *evil liver.*
To both of us are given, in all their beauty,
The *auricles* through which we learn our duty.
And which of us be greater or be less,
We both need *patience* for our sure success,
Since many of us for bread have constant tussles,
And, prophet-like, depend on *pulse* and *muscles.*
You well remember how, in pious books,
The goody-goody boys with pallid looks,
So soon were sent to Heaven, that much we feared
Religion was unhealthy, and appeared
A terrible distemper! Ah! not so
The Great Physician taught while here below;
An early death's no more the pupil's fate,
Your skill can cause the pupil to *dilate.*
But I must on to soberer thoughts than these,
Which only passing fancies seek to please;
For you'll have *humerus* work your skill to tax,
And though 'mong *biliary ducts,* hate *quacks.*
So theology to science makes its bow,
And to perpetual friendship writes its vow.
Let one give healthy bodies, sound and whole,
The other, then, may medicate the soul.

Each man creates his world; the difference
Between his fellows, or the things of sense,
Is no evolving of some stern decree,
That pagans and philosophers call destiny.
Not in the things themselves, but in the mind
That contemplates them, shall we always find
What's real. Thus the lustre of her face
Fair nature veils from one, and then her grace
Reveals to other. Now her bridal robe she wears,
And now her shroud bedewed with human tears.
The same world, spread out in the rosy light
Of the sixth morning, summoned God's delight,
As the new creation with His praises rang,
And morning stars for joy together sang.
While, in his musing, melancholy mood,
Ecclesiastes could see nothing good.
Thus the same senses daily apprehend
The same material objects, yet they tend
To different conceptions. No two persons see,
In groupings manifold of leaf and tree,
Of rugged mountain, and of leaping stream,
Of passing cloud and plains of flowery sheen,
Precisely the same aspect. Thus the child
Stands by the eddying river sweeping wild
Along its banks, and strains his anxious look
Where he may float his chip or throw his hook.
The merchant sees a highway, where the gales
That fret its surface spread the snowy sails
Of peaceful commerce, bringing generous gains
To fill his coffers, and reward his pains.
The mother in whose face is darker woe
Than crape can symbolize, can only know
That on a summer's day, her darling boy
Was lifted from the treacherous waves that toy
With herbage fair, and flowers and rushes green,
That bend to kiss the softly gliding stream,
His fair locks braided thick with reed and rush,

His voice forever silent in death's hush.
The poet sees almost a human thing;
There's music in its voice that seems to sing
In solemn tones, that, like its hurried flow,
Is man's brief pilgrimage. The scenes that know
Us now, alas! shall know us soon no more;
And, graven on the sands of either shore,
He reads God's ordinance, by which the rain
And sun—suspended mist, are led again
Unresting o'er the earth, in ministries to man
Of mercy; each by an ordained plan,
In paths traced out at each successive sun
By God's right hand, its proper course to run.
Now flashing in the sunlight down the sides
Of mountains, now through bosky glen that hides
Their face in hollows dark, now through champaign
Till down the vale they reach the solemn main.

'Tis thus the constant temper of the soul
Makes or unmakes our world through its control.
We stamp all objects with the seal divine
Of high and holy purpose, or we pine
In peevish discontent, and find in self
Our sole incentive, or in ease, or pelf.
From Learning's seats, whose air is saturate
With purest wisdom, we go forth elate
To bless mankind, or become devotees
Of an ignoble, though a lettered, ease;
Singing of self and sense the drowsy song,
While powers unbounded seek Delilah's thong.
Be sure, young gentlemen, the only test
Of our professions is the honest zest
With which the work of daily life is done
In each one's station. Thus success is won.
'Tis idle though the mind may compass facts
That crowd the printed page, if so it lacks
The power to use them. Though with lighted lamp
Of history we stand, and hear the tramp

Of long processions, as across the stage
Of human life they march from age;
'Tis labor lost, unless with wiser eye,
Backward we go, a purpose to descry
In all the shifting scenes of good and ill,
To read but indications of Jehovah's will:
That pity, smiles, and tears, and vengeance dire,
Benignant peace, and war with sword and fire;
Proud dynasties, and shattered thrones that lie
Prone in the dust of centuries gone by;
Great men, whose frown affrighted a whole world,
Now gone, like autumn leaves by tempests whirled,
Are all but parts of one mysterious plan
By which is wrought the weal of mortal man,
And bid us scan the paths the ancient trod,
That ours may tend to virtue and to God.
What though we view with telescopic eye,
The wonders of that flashing jewelry
That swing and glitter in th' stupendous arch
Of Heaven's ethereal fabric, in their march
Uttering their speech by day, and night to night
Revealing knowledge in their characters of light,
Cheering with sunshine every son of toil,
Filling fair Nature's lap with flowery spoil,
Stationing, to chase away the gloom,
The rose, sweet sentinel at maiden's tomb;
Sprinkling with gold the crested grain, whose beads
Nod to the winds that kiss the flowery meads,
Guiding the sailor o'er the pathless sea,
Into the offing, where he fain would be;
Drawing from sea and brook, with unseen hand,
The showers they sprinkle back o'er thirsty land;
What though, by study, we spell out the thought
Of Him whose hand such marvellous works hath wrought,
If science teach us not the august plan,
By which the knowledge thus made known to man,
By man is utilized, and so the mind

Schooled into useful service to mankind?
The true physician cannot simply tell
What crystals lie adown in science's well;
He brings them up, that others too may see
Divine provision for humanity.
Vials by God's own hand for ages sealed
Beneath life's deep and troubled sea, now yield
Their precious secrets to his earnest ken,
And thus he benefits a race of men.
He meets some charlatan at every turn,
Whose eager eye is straining to discern
But selfish gains. The former reverent goes
To Nature's oracles, and as the rose
He meekly questions, all its petals part
To shed but dew and perfume in its heart.
The latter, poisoned with the dire disease
Of quackery, but tears the trembling leaves,
To find but grovelling worms, and things uncouth
Gnawing its beauty with consuming tooth.
Not only *why*, but *how*, you medicate
Shall gain the plaudits of the good and great.
In your diploma, better guaranty
Than social state, or envied pedigree
You'll read, that of a richer heritage
Than all the gains that crowd the ledger's page.
How tells that parchment what you hope to be
Through loving labors for humanity!
What anxious days! What nights of fitful sleep,
When faithful friends their patient vigils keep
About the loved one's bed! How deep the sigh
Of sweet relief to know that you are nigh!
What perfect trust and hope—just as some chlld
Who, wearied with long wandering in some wild,
Comes back at evening to a mother's breast,
To dream away its pain in pleasant rest.
What gratitude the sufferer's heart will fill
To him, whose assiduity and skill

The Lord shall bless, in added length of days
Forevermore devoted to His praise!
What joy is yours to wipe the tears that flow
From swollen eyes, within this world of woe!
Be your's the rich man's gold, the poor man's blessing,
And thus to life's great work yourselves addressing,
You'll hasten on the great and glorious day,
When from all eyes the tears are wiped away.

A Case of Embolism Affecting the Right Lung and Kidney—Recovery.

REPORTED TO THE DETROIT MEDICAL AND LIBRARY ASSOCIATION,
MARCH 5, 1877, BY DR. H. A. CLELAND.

I was called, on the fourth of last month, to visit Mrs. M.———, a lady aged fifty, of full habit, active temperament, who had never borne children, but was still menstruating.

I found her suffering from inflammation of the internal saphenous vein of the left leg and several of its cutaneous branches. The vein, which for several years had been varicose, of late had become so troublesome that, acting on the advice of a friend, she had applied a bandage herself, which had occasioned the condition I was now called upon to treat.

The vessel, where it passes over the inner ham-string, was red, enlarged and exquisitely tender to the touch, or motion of the limb, and, from its hardness, evidently contained a thrombus, which extended into several of its tributaries.

She had slept little for two nights, but the circulation was not accelerated, neither was the temperature increased. Under rest and appropriate treatment, in a few days she was so much improved as to be enabled to resume her household duties, and I to discontinue my visits.

I heard no more of her till the 17th of the month, when I was summoned with the message that my patient was dying. I found her suffering from intense pain, located in the mammary region of the right side, which, from its intensity, prevented any but the shallowest respiratory movement. The whole body was bathed in a profuse perspiration; the countenance, anxious and haggard; the pulse, 130 per minute and feeble; the temperature under the tongue 97.4°. Physical examination revealed nothing. The slightest percussion, however, could not be borne. The pain had appeared suddenly and with great intensity, an hour before I reached her, while she was about her usual duties. There was no initiatory chill.

Under the use of large hypodermics of morphia and atropia, the pain was, after a period, brought under control, and I left her for the night.

Early the following morning I was called in haste, and found her suffering acutely; but the pain had left, to some extent, the mammary region, and was now referred to the subclavicular space. As before, there were no physical signs upon auscultation, and the slightest touch of the part, or movement of the shoulder joint could not be borne. The pulse, 130 and feeble; temperature, 97.3°.

Under appropriate treatment the pain was again relieved, and for the succeeding forty-eight hours she remained comparatively comfortable, although the asthenic symptoms still continued—as the feeble, rapid pulse, the low temperature and the profuse diaphoresis.

During the afternoon of the 20th I was sent for again in haste, to find her in great anguish, from pain located in the region of the right kidney. The slightest touch over the part, or any motion of the body, would cause her to scream. The face was dusky; the conjunctiva injected; the pulse, rapid and intermitting; profuse diaphoresis; temperature, 96° under the tongue. The pain in the sub-clavicular and mammary regions still remained, but was swallowed up in the present great pain. Under enormous injections of morphine and atropia, after two hours my patient was again made comfortable, comparatively, but during the evening and night her sufferings were very great.

When I made my morning call on the 21st, I found, to my gratification, her aspect much improved. During the night she had coughed, and was still coughing up clotted blood, which was followed by great relief of the mammary and clavicular pains. She had made but little urine during twenty-four hours, which was of high specific gravity, and contained blood corpuscles. Diaphoresis still continued, though not to the same extent; the temperature under the tongue showed 101.2°; the pulse 115, steady and full.

From this time she began slowly to improve. For a number of days she continued to expectorate large quantities of dark clotted blood, and to void smoky urine of high specific gravity. The pains of the chest and kidney slowly disappeared. The temperature remained at 99°; the pulse at 100; free diaphoresis also continued for a week or more. The heart still remains irritable, and is liable to become intermitting in its action at the least excitement, physical or mental.

The analysis of this case is an extremely interesting one. The thrombus of the saphenous vein was, doubtless, the origin of the difficulty. Detached portions of the plug found their way into the general circulation, on three different occasions. The first and second, passing through the right side of the heart, were driven into the right pulmonary artery, becoming wedged in the capillaries of the lung. The second was driven into the renal vein of the right side, where it met with a similar fate in the capillaries of the kidney. The pain, sudden and intense, was a sequence of the lodgments of the clots and the malnutrition resulting therefrom; the weak, rapid, intermitting pulse; the profuse diaphoresis—in a word, the shock, a sequence of the pain and the presence of a foreign body in the circulation.

The conservative powers of nature were beautifully illustrated in the establishment of hemorrhage from the lung and kidney, which, relieving the congestions, doubless also eliminated the foreign bodies from the blood.

Reports of Societies.

Proceedings of the Northeastern District Medical Society.

The annual meeting was held at Romeo, Mich., on January 31st, 1877.

Owing to the absence of the President and Vice-President, the meeting was called to order by the Secretary, and, on motion, Dr. Leete took the chair as President *pro tem.*

The following members were present, viz.: Drs. A. E. Leete, James Harvey, Wm. Greenshields, Philo Tillson, Seth L. Andrews, of Romeo; Dr. Albert Yates, of Washington; Dr. F. M. Wilcox, of Rochester; Dr. P. A. Knight, of Utica, and Dr. Lincoln, of Armada.

It was then resolved that Drs. Andrews and Tillson be appointed a committee to draw up suitable resolutions on the death of our fellow-member, Dr. Henry Taylor, of Mt. Clemens.

And, in accordance with the above resolution, the following was submitted and passed:

Whereas, We have learned that one of our original members, and the oldest practitioner of medicine in the State, Dr. Henry Taylor, has recently died;

Resolved, That we regret his departure and loss from our ranks and from our councils, where he has so long held a prominent and honored place.

Resolved, That we tender to the bereaved family our heartfelt sympathy in their affliction.

Resolved, That the Secretary be requested to forward a copy of these resolutions to the family of the deceased; and, also, to the DETROIT MEDICAL JOURNAL, and to each of the Mt. Clemens papers, for publication.

Drs. McColl and Kenney, of Lapeer, having arrived, Dr. Kenney, being Vice-President, took the chair, and the election of officers for the ensuing year was proceeded with, resulting in local applications of caustic strength, nor mercurials, to produce their constitutional effects, but used ice internally.

The discussion being ended, the society adjourned, to meet next June, at Lapeer, Michigan, subject to the call of the President and Secretary.

M. C. KENNEY, M. D., *Vice-President.*
ALBERT YATES, M. D., *Secretary.*

Detroit Medical and Library Association.

FEBRUARY 19, 1877.

President Dr. Jas. A. Brown occupied the chair.

There were twenty members present.

PREVAILING DISEASES.

Dr. Shurly said he had seen some cases of scarlet fever, one of them being of the variety "scarlatina latens." The fever was periodic in character, no rash, and throat symptoms well marked. He had also seen quite a number of cases of influenza among children. One case was peculiar, as there were very severe paroxysms of coughing, which could only be allayed by the use of carbolized inhalations. There was no laryngitis, as the voice was loud and clear.

Dr. Yemans reported a case of purpura hæmorrhagica. There were maculæ over the whole body; an ecchymosed spot under the left eye; hæmorrhage from the bowels and mucous surfaces; regarded it as a form of small pox, though only one pustule appeared, and that was on the face. The patient died. There was no previous tendency to hæmorrhage from slight injuries, and his habits of life were good.

Dr. Inglis reported a case of unusual cerebral derangement, somewhat as follows: I was called, Feb. 10th, at 11 p. m., to see a child, æt. 7, who had been complaining more or less since Feb. 6th. On the 5th he had a chill and vomited, also vomited a week previously, but during that week went to school as usual. The vomiting was not followed by much fever. This little patient was very intelligent—a precocious child—had been much interested and excited about his school matters. When I first saw him the temperature was normal, pulse 100 and regular; no vomiting nor chills since Feb. 5th; was conscious and intelligent; could hear; did not then and had not complained of headache; bowels constipated; tongue furred; no retraction of head; could walk straight; no paralysis; no epilepsy; but could not speak, save the word "nein." This condition continued for several days, but finally he could spell "bird," and then he would repeat this process over and over, and when I last saw him he would commence at one and count up to twenty, and then repeat it again and again. During this period there were times when he would jump out of bed and run all around the house at the top of his speed; did not seem to know any one; was clearly out of his mind; would weep without any apparent cause. Thinking this trouble might have been caused by embolism, I examined the heart carefully, and found it normal; lungs normal. Gave potass. brom,, grs. v., every three hours. Called again Sunday, Feb. 11th, at 9:30 A. M.; found that he had slept tolerably; was again restless and wild toward 4 A. M., but when seen was quiet and conscious; abdomen somewhat retracted; when he moved in bed seemed to make unnecessary motions, but could, however, reach out and grab a bunch of keys held in front of him with the left hand, but failed to put the right hand far enough up to change them from one hand to the other; mouth slightly distorted toward the left; tongue protruded all night; pupils large but equal and responsive. Ordered hydrate of chloral, grs. x., every three hours. The Dr. said that this had been a very interesting case to him, and he would like to have the views of the Society concerning it.

Dr. Connor said that a similar case presented itself to his notice a short time since. A strong, robust German, æt. 20, whose parents, sisters and brothers were healthy, about eight days ago, while lifting at a machine, suddenly became dizzy, fell down and was unconscious until the next day, when it was found that he could not speak, and has not been able to from that time. He is not able to protrude the tongue or open the jaws more than a half or three-fourths of an inch. The right side is not quite as strong as the left. Can answer questions intelligently in writing; complains of dizziness if pressure is made on the head. The symptoms were explained on the theory that there was a lesion at the base of the brain in the motor tract. In the process of lifting, an over distension of some of the vessels had probably been produced, and the sudden pressure caused a rupture of some of the delicate nerve fibres in the motor tract, perhaps of the optic thalamus, interfering with the co-ordinating nervous impulses from the speech center.

Dr. Shurly remarked that the symptoms of Dr. Inglis' case were very similar to those of a case diagnosticated by Dr. Moore, of Rochester, N. Y., as "concussion of the brain, with localized cerebritis." This patient recovered at the end of a year. There was no fever, except for the first few days. There was a derangement of the mind and difficulty of speech, although he had lucid intervals.

Dr. Cleland stated the following case, as bearing on the subject:

A Scotch gentleman, advanced in years, who had had charge of a large estate for a long time, the care of which required a good amount of mental work, suddenly became insane and epileptic. He came to this country but it did not benefit him any. One day he was taken with a fit, and before any one could render him aid he fell in the fire and burned his scalp severely. After many weeks of sickness, pieces of necrosed bone, involving both tables of the skull, dropped away, leaving a small surface of the brain exposed, and straightway his intellectual faculties came back to him perfectly,—even his mathematical knowledge was completely restored.

Dr. Eugene Smith asked Dr. Conner if he thought the rupture of nerve fibers in the motor tract in his case accounted for the symptoms.

Dr. Connor said he believed the symptoms were produced in part by the same cause that would produce rupture of the nerve fibres, *i. e.*, sudden dilatation of the blood vessels, with increased pressure.

Dr. Shurly asked if the ill effeets of sudden dilatation of the blood vessels, with slight serous effusions, were not prevented by the ebb and flow of the cerebro-spinal fluids?

Dr. Connor said that might be true to a certain extent; but these were extraordinary congestions we have described, no matter how brought about, whether from severe mental strain or some other cause. If there is no rupture of the vessels, after a time the effusion is returned; if it has taken place and the patient gets well; but we must suppose in some cases there is a rupture of nerve fibres causing such symptoms as described in the cases reported, and which may after a time be recovered from. The man Dr. Cleland mentioned was much more fortunate in his escape from the results of over-pressure of the brain than thousands of other men are in the country who exhaust their brains by over-work and who soon reach a point where the derangement becomes so great from mal-nutrition that they cannot recover.

Dr. Eugene Smith reported the following case: A young man presented himself to his notice who had been treated for erysipelas of the eyelid. Found on inquiry that he had a discharging bubo; the eye had much the appearance of persistent ophthalmia; no redness; excruciating pain; high temperature, at least 104°; dry skin, etc. Prescribed simply a mercurial at that time. The next morning found that the other eye was affected and the superior maxilla of the side first attacked was swollen, hot and very tender; the tongue was heavily coated, brown and cracked in the center, white on the edges, Put him on calomel and Dover's powders, and improvement in the case commenced immediately. From the previous history of the patient, and the symptoms presented, he regarded it as a case of syphilitic infraorbital periostitis.

Dr. A. C. McGraw thought the fact that it was a suppurating bubo would argue against its being of a syphilitic nature.

Dr. S. explained that the patient acknowledged having a chancre a year ago, and had been treated meanwhile for secondary symptoms. The suppurating bubo was the result of a recently acquired chancroid.

Dr. McGraw said he had recently used the battery in the treatment of a nævus. It was of immense size, covering the whole of one side of the face and the upper lip. The lip hung down to the chin. He passed the needles into the lip and turned on the current from forty-five cells. Great destruction of tissue resulted, and in a short time the whole mass sloughed away, without any hemorrhage. Also burned a large hole in the cheek, and intended to burn away the whole mass and leave cicatricial tissue in its place. If there was too much contraction, could easily remedy it by bringing down a flap from the cheek. The operation was painful, and ether was given.

Dr. Mulheron had recently treated a young man for typhoid fever, and he was beginning to recover, when he found one day that the temperature had suddenly risen to 105°, but could discover no complication to account for it. Next day, however, he found that he had diphtheria, with a temperature of 106°, which persisted for a week without much intermission. The highest pulse rate was 144. To reduce the temperature he resorted to 20 grain doses of quinine, which produced the desired effect, with slight diaphoresis. The patient recovered.

JAS. D. MUNSON, M. D.,
Secretary pro tem.

MARCH 5, 1877.

President Brown occupied the chair.

Dr. Cleland reported a case of embolism affecting the vessels of the right lung and the right kidney. (The full notes of the case appear elsewhere in the present number of the JOURNAL.)

Dr. Connor, in remarking on the case, called attention to a cause of pain so very forcibly illustrated by the history of this case. There was the most excruciating pain, coming on almost instantly, and which was controlled only by enormous doses of analgesics. This arose from the partial stoppage of the flow of blood to the part. There was, in consequence, a deficient supply of food, a kind of mal-nutrition, and hence the extreme agony. The parenchyma of the lung was especially rich in its nervous supply, and any interference with its nutrition very quickly manifested itself.

Dr. Eugene Smith asked how morphia and atropia together could be of any use. He had used them in conjunction in his own family without any satisfaction. If they were antidotal to each other, as claimed, the effect would naturally be *nil.*

Dr. Mulheron replied that Dr. S. had made a statement not borne out by recent experiments. Atropia did not act as an antidote to morphia, but it stimulated certain functions which morphia depressed, as the function of respiration and the circulation.

Dr. Connor added that they were not supposed to be chemically but physiologically antagonistic. Were the former true, the one would always annihilate the other in the system; the latter being true, one drug controls the often excessive action of the other with the happiest results.

Dr. Yemans, through the courtesy of Dr. Brown, exhibited a patient afflicted with tinea sycosis, affecting the entire bearded portion of the face. Pus was present in some regions. Epilation had been performed over nearly all the affected parts. Tr. iodine was applied locally. He also exhibited some "Favi cups" just removed from the scalp of a patient under treatment. He was having the scalp cleansed, and would then apply anti parasitic remedies. The hair would be restored, except in those spots where the follicles were destroyed.

He also reported a case of alopecia areata, or vitiligo of the scalp, there being five areas of baldness. Under the local application of tr. iodine, tr. capsicum and tr. nux vomica, singly or combined, the hair was restored, but on one spot remained gray for several months. It was now resuming its natural color.

To an inquiry why epilation was useful, Dr. Yemans replied that the remedies could not reach the seat of the disease while the hair remained in the follicle. In answer to another query, he replied that he expected to stimulate the epithelial cells lining the follicles by the use of stimulating lotions.

Dr. Carstens believed that epilation was useful, because that process removed the food of the parasite. It had to find a peculiar soil in which it could live and increase, and this, he believed, depended on some condition of the blood. The spores of the parasite floated in the air, and might settle in any one's head, but only occasionally would we find a case of tinea. This was in accordance with his belief that the physical condition of a person had much to do with the contraction of the disease. Locally, he found carbolized lotions useful in destroying the parasite.

Dr. Jenks reported a case of double ovariotomy in a woman fifty-three years old. She had come from the western part of the State, where she had been treated by various physicians for ascites, arising, some told her, from kidney disease, and others, from liver disease. She had been tapped twice, but without benefit, nor could the Dr. determine from her description whether the fluid was ascitic or otherwise.

He made the diagnosis of ovarian tumor, probably multilocular and adherent to the uterus, excluding uterine fibroid on account of the age of the patient and apparent non-malignancy of the growth. The patient was anxious for an immediate operation, but he prevailed on her to enter the hospital for three weeks to undergo preparatory treatment. However, in a week the rapid growth of the tumor interfered so much with the heart's action that an immediate operation became absolutely necessary, and it was accordingly performed on the 22d of February.

Under the carbolized spray (Lister's antiseptic method) an incision was made from the umbilicus to the pubes, and the peritoneal cavity opened. The tumor was found to be multilocular and adherent to the abdominal wall, the omentum, the intestines, the uterus, and throughout the whole retro-uterine space. It was removed by enucleation and found to weigh thirty-five pounds. The uterus was found to be healthy, but the other ovary contained a cyst about the size of an egg, and this was likewise removed and a ligature applied to the pedicle. The adhesions were so extensive that many vessels were ruptured during the process of enucleation that had to be tied, and several times the operation was stopped for this purpose. Eighteen or twenty ligatures were thus applied, the material employed being Chinese silk. These ligatures were all cut short and left in the peritoneal cavity, but those applied to the pedicles were left with long ends for the purpose of drainage. The peritoneal cavity was then carefully and thoroughly cleansed with warm water of the great quantity of blood which had escaped into it during the operation, and the wound closed by means of bandages and compresses, the long ligatures making their exit at the lowest point. This was the best method of drainage, the Dr. claimed, and never again would he introduce a tube for this purpose into the peritoneal cavity. No sutures were placed in the external wound, as the patient had become greatly exhausted under the combined influence of the operation and the anæsthetic; once she sank so low that the administration of the latter was stopped and the battery was made ready for use, but, happily, was not needed.

The patient rallied pretty well, and up to the third day no tympanitis appeared. Morphia was given subcutaneously to quiet the nervous system, but no food was allowed for twenty-four hours after the operation, only brandy and water being used for its stimulating effect. It was a mistake, the Dr. said, to give food soon after an operation of such a grave nature, when all the energies of the individual were necessary to establish complete reaction.

On the seventh day the pulse flagged greatly, and on the eighth day it was still worse, so that it seemed certain that the patient must die. Such being her condition, the attendants, who were advanced medical students, were instructed to administer dram doses of brandy, and dram doses of Lente's solution of quinine, hypodermically, until some effect was produced, as no harm could result from overdoses as long as she continued to sink.

This medication, although it caused two small abscesses, was followed by the happiest results, the patient soon beginning to recover her strength. She may now, on the thirteenth day, be considered fairly convalescent.

There was some flatus, which was relieved with nux vomica and creasote. There was no hæmorrhage, peritonitis, no septicæmia, no danger whatever, during the after treatment, except the extreme physical prostration already described. The wound healed by first intention throughout nearly its whole length, and was now almost closed. The case was interesting on account of the age of the patient, and the very extensive adhesions that existed.

Dr. Mulheron reported a case of intussusception of the bowels. When he first saw the patient he was in extreme physical agony, and was vomiting stercoraceous matter. The bowels had not moved for several days, and castor oil, salts and other domestic remedies had been taken, but without effect.

One-eighth of a grain of morphia was administered hypodermically, but without relief, and the dose was repeated every few minutes, until a grain had been given, when there was some alleviation of the pain. Subsequently half a grain more was administered. The diagnosis having been made, the patient received an injection of water, which emptied the lower bowel. He was then put in the knee-elbow position, and fully six quarts of water forced into the bowels by the aid of a Davidson's syringe. This caused a considerable increase of the pain, a good deal of force being necessary to overcome the resistance, but at the end of an hour and three-quarters, suddenly, with a great sigh of relief, the patient rolled over on his side and went to sleep. The operation had been successful.

Dr. Shurly mentioned a case of a similar nature, as was supposed, but neither injections of air nor water brought relief. A post mortem revealed the fact that, besides the intussusception, there was also strangulation of a loop of intestine by an adhesive band.

Dr. Carstens said he had recently had a case for which he had done nothing but give a little bismuth to relieve the vomiting. A large piece of the intestine sloughed away, and the patient recovered.

On motion of Dr. Mulheron, the Committee on Publication was empowered to prepare and publish in the Sunday papers, date March 11, 1877, an article on " Vaccination.

THEO. F. KERR, M. D.,
Secretary.

Correspondence.

Medical Gossip from Berlin.

My Dear Editors,—As I have been in Berlin now about four months, you will, no doubt, think it time that I should redeem my promise, made to Dr. Mulheron, to send you some letters for publication concerning matters and things here in the medical line. But, now that I seat myself for this purpose, I feel that it will be a somewhat difficult matter to present you such a picture as will be interesting; for, to me, what is to be seen is no more new, and I fear my descriptions will, consequently, lack vividness. One advantage may arise from this, however, namely, that, the glamour charm of novelty having worn off, I shall be more certain to present things in their natural colors, and to give of them a more reliable, if not a more pleasing, account.

As many of the clinics are held in apartments in the public hospital, known as the "Charite," I thought it might be well first to describe the building; but, on making some inspections for that purpose, I found that it alone would afford subject enough for many letters, for it is an enormous affair. I shall, therefore, simply say that it is made up of several buildings, some of which are wholly devoted to one department, as is the case with that in which Virchow has his physiological laboratory. It has capacity, I am told, for two thousand patients, each class being assigned its separate apartment, and its separate professor and staff of assistants.

The buildings are all very plain, both externally and internally; but, in the former respect, in perfect harmony with all the buildings in Berlin. They are built of solid masonry, with plastered surface, in imitation of block stone. The walls are fully four feet thick, at least as high as the second story. The roofing is of flat tiling, put on as slate are. This is the material most in use in this country, judging from my observations here and on the way between here and Hamburg. Not only are the humblest cottages, but the royal palaces, so covered. It is, however, very clumsy in appearance, and this, together with its disagreeably red color, and, when old, its mossgrown, green surface, renders it very marring to the appearance of any building. The internal appearance is very clean and comfortable, and the partitioning of space the most convenient. The wards of each professor open into his clinical apartment—lecture room or operating room, as the case may be—and thus the utmost ease and safety are secured in the movement of patients to and fro.

Now, that we have given enough for a general account of the "Charite," we will make a call at some of the clinics. Prof. Schrœder's being first in order, we will see what he has interesting to-day. His room is not more, apparently, than twenty feet square. As one enters, there are three rows of chairs arranged for the students, probably about thirty in number, and these are not all legitimately filled. They are always, however, occupied; but a good many who visit this clinic, as well as all the others, are physicians from all parts of the world, who are, on proper introduction, welcome to be present. These I do not call legitimate occupants of the seats, but they show a very strong aversion to vacant chairs.

It may seem strange that there are so few students at this clinic, but such is the case at all the others, also, and it is accounted for in this way: The course of studies is divided up into semestres, and covers a total period of four years. Each semestre has its particular study, and so the students are found at various stages of the course, now studying under this professor, now under that, and so scattered about amongst the clinics that one cannot see them all at once, as is the case in an American school. I may as well say here, too, that the full course of study lasts about four years and a half; for the examination of students lasts about six months. They are first examined for their degree by the University, and then by the State, for the privilege of practicing. The latter examination is much the more severe, and is both practical and theoretical. The student has his patient given him in the hospital, and is obliged to see him through his troubles, and to render a strict account of the same in writing. Thus he has to make his way through all the departments of medicine, to the satisfaction of State officers, before he is entitled to practice—and this, too, after graduating from a university which is, I believe, the property of the State and under its supervision.

This thoroughness may seem, to Americans, too exacting. It may be from the student's view; it may be for the medical mountebank; but it is not in the opinion of an intelligent sick man who wants a physician.

In the middle of Prof. Schrœder's room is a very ingeniously constructed chair, upon which the patients are placed for examination and operation. I will try to describe it so that a fair idea of it may be obtained. The material of which it is constructed is ¾ inch iron. Its seat is at a convenient height for the surgeon's eye, while he examines the parts in a sitting position, or makes operations. It is made of some soft material, packed a little solidly, and covered with leather. The size of the seat is not much larger than that of a comfortable arm chair —exceeding this most from front to back. Running up from the framework of the seat is a projection, which might be called the back of the chair, and which consists simply of leather fastened across the frame. This is movable upon a hinge, and can be raised or lowered at the convenience of the patient or surgeon. But little more than the head of the patient reaches it. So far, it does not differ much from some other operating chairs, but in the following respects it has some advantage: Upon each of the anterior legs are two crutch-shaped supports, for the fixing of the patient's legs. They are so attached as to be movable up and down, and are held in place by thumbscrews. One is situated above the other, and when the patient is in place the top of the upper crutch sustains and fixes the knee; the lower one performs the same office for the foot. When the patient is in position, the nates may even project beyond the front of the chair, the hips being hung, as it were, and sustained by the knee crutch, which, as also the foot crutch, projects towards the surgeon, at an angle of, perhaps, 30°. In this way the person of the patient is fully at the command of the surgeon. The legs of the patient are spread well apart, and all covering or obstruction removed, so that the light, which passes over the surgeon's shoulders as he sits between the limbs of the patient, has full play upon the instruments or parts under examination. Also, attached to the front legs of the chair, below the crutches, is a step, from which the patient mounts into the chair, and upon which dishes of water or other conveniences for the surgeon may be laid, or receptacles placed for blood, which would otherwise drop on the floor, during operations. Altogether, it seems the perfection of convenience, which, of course, it must be, otherwise it would not long be used by one who has so much work to perform as has Prof. Schrœder.

This clinic is held three days in the week, an hour a day. On an average, three patients are attended to in this hour, unless there is some tedious operation to perform. During several visits that I have made here, the patients who were presented were suffering from one form or other of cancer of the uterus, and it surprised me somewhat to see that not only those past middle life were represented, but also those whose uterine functions were at the period of their greatest activity. I saw the Professor apply treatment to several of these cases. In all, after removing what he could of the cancerous substance, with what is called, I think, the sharp spoon, he applied the actual cautery. To one who has never before seen this done, it is a most shocking thing. The vaginal walls are held well apart by Sim's speculum, while the iron, at white heat, is passed from one to several times right through, if necessary, the neck of the uterus. I have not seen any of the patients after the reaction from this treatment, but would suppose, on general principles, that it would be very great.

On one occasion I saw used a very ingenious instrument, which was intended to substitute, in such operations, the iron heated in the ordinary way. It was invented, I believe, by a Paris physician, whose name, as well as that of the instrument, I cannot now remember; and its main object is to keep up constantly the desired heat during any necessary time, without reheating. This is accomplished in the following manner: The end of the instrument, which is a bulb, and is perforated with small openings, is held in a spirit lamp a few minutes, till hot; then a stream of some napthous fluid, as I am informed, is passed, by a contrivance similar to a Davidson's syringe, through a tubous passage in the handle, which is in communication with the openings in the bulb, through which its elements, after decomposition by the heat of the bulb, escape. In the meantime an action between the platinum (of which the bulb is made) and the hydrogen of the naphtha takes place, which results in intense heat, which is continuous as long as the instrument is kept in action. Notwithstanding it seemed an admirable contrivance, the Professor did not approve of it, and laid it aside in favor of the simpler method.

In this clinic (and I may say here, once for all, in all the clinics where an exposure of the person is necessary), there is not the slightest regard for feeling or modesty, no more than if such things were unknown. I do not make this remark that I may criticise in the slightest degree adversely the apparent disregard of ordinary proprieties, but to present the fact that no removable obstacle is allowed to come between the physician and his patient. In the fullest sense of the word, the patient is at the disposal of the doctor while under his care; and this seems to be mutually understood. If any hesitation is shown to this complete submission, the patient is dismissed. And the thought here occurs to me, what wonder that men become great as physicians, and eminent as authorities, who, under such circumstances, have an unlimited number of patients, and every means for treatment at their hands that genius can contrive or money procure, while they, at the same time, devote all their energies to but a circumscribed field of labor? The more I see of the way great men are made, the more weight I am inclined to attach to their opportunities, and the less faith I have in the commoner impression that all the difference lies in superior mental faculties or organization. Of course, as to the extremes of mental capacity, the latter impression is correct, but in the case of average mental power, I think most is due to opportunities, with, of course, the desire to make use of them.

Before passing to any other clinic in the "Charite," it may be best to visit what is called the "Policlinic," of Prof. Schrœder. This is situated at No. 5, on Dorotheen street, but a short distance from the Hospital, and, as its name implies, is devoted to the general diseases of women, as well as to obstetrics. As one enters here, he sees arranged near the centre of a long room, three couches, side by side, at convenient distances apart, with the feet toward the light. Upon these are examined by the professor and his students women in all stages of pregnancy. The patients walk in in a very matter of course way, lie down in position, and then, with the person fully exposed, submit to vaginal or any other examination which may be necessary, not only by one student, but perhaps three or four. They go out and in in quick succession, as there is no scarcity of such patients in a city of this magnitude, and when the hour has passed, plenty remain over for another day.

From this room we proceed up stairs to the lying-in department. Here patients in the act of labor are studied and examined, as in other cases, without restraint. We then retrace our steps to the room just left, to observe the treatment or diagnosis of uterine diseases in general. Here another chair, such as already described, is in use. This part of the clinic lasts from two to three hours, first under the conduction of the professor in person, and then under that of his chief assistant. This clinic is also three times a week.

I will close what I have to say in this letter by a few remarks concerning Prof Schrœder himself, which may not be uninteresting, especially to recent graduates of Michigan University, who, I believe, read his works as class books. I might send his photograph if a copy of it could be inserted in printing this letter, as might also be done with the photographs of all the members of the faculty of which I intend to write, but as this would probably be somewhat expensive, I must only describe him as best I can in a few words. Prof. Schrœder is a man of about 35 years of age, well formed and robust, with a florid complexion and sandy hair and whiskers. His face is of the purely German type, which is mostly distinguished by the broadness of the forehead and the fullness of the eyes. His head is quite bald for one of his age. In speaking he is very deliberate, firm and unhesitating. In his operations and examinations he shows the same decision. It is said of him that he is a constant worker, being most of the time with his patients, and attending in person all their labors.

R. J. PEARE, M. D.

February 13th, 1877.

Abstracts From Exchanges.

Practice of Medicine.

TREATMENT OF TYPHOID FEVER.—In one of a course of lectures by Prof. A. L. Loomis, reported for the *Medical Record*, the lecturer lays down some important practical rules for the treatment of typhoid fever. He premises these by the statement that, when typhoid fever is carried from the sick to the well, the evacuations are the chief, if not the only, cause of the contamination. The importance, therefore, of thoroughly disinfecting the excrements of typhoid patients is manifest.

After the poison has once entered the system, no means have as yet been discovered by which it can be counteracted or neutralized, so as to prevent the development of the disease. The best that can be done is to guide the disease to a favorable issue, and prevent injury to organs essential to life.

It is claimed, by many very distinguished observers, that the high temperature is the cause of the parenchymatous changes which constitute the danger in typhoid fever. Dr. Loomis does not concede this, but claims that the specific poison of the disease is most active in this causation. It is still an unsettled question whether the disturbances of the cerebrospinal system are owing to primary changes in the constituents of the blood, or to the effects of high temperature in the nerve centres.

The most efficient and reliable agents for the reduction of temperature are, unquestionably, cold water externally, and the sulphate of quinine internally. As soon as the temperature rises over 103° F., place the patient in a water bath having a temperature of 70° or 80°, and gradually lower the temperature by the addition of ice or cold water, until the temperature of the patient begins to fall. It may be necessary to lower the temperature of the bath to 60°. If the temperature of the patient falls rapidly—that is, two or three degrees in five or six minutes—as soon as it reaches 103° he should be removed from the bath and placed in bed. If the temperature falls slowly, the patient should be removed at 101°. The patient should never be kept in the bath until the normal temperature has been reached, else he may pass from a condition of fever to a state of collapse. While in the bath, the head should be cooled by sponging with cold water, or by the application of the ice bag.

In severe cases, during the first and second weeks, the temperature thus reduced will begin slowly to rise again, until it reaches its former height. This rise usually sets in in from one to three hours, and reaches its maximum in from two to six hours, when it is necessary to repeat the bath. After four or five baths have been administered without permanent good, it will be useless to rely on them without calling in the aid of other agencies. In such cases the temperature, when lowered, should be sought to be kept down by means of quinine.

TREATMENT OF ACUTE DYSENTERY BY INJECTIONS OF HOT WATER. - The success in the treatment of the pelvic viscera by vaginal injections of hot water induced Dr. John J. Reid to try their effect in acute dysentery. He reports, in the *N. Y. Medical Journal*, that the trial was very satisfactory. The hips of the patient are slightly raised, by means of a pillow, and a basin of water of the requisite temperature (from 100° to 110° F.) is placed so as to allow the nates to rest on the edge of the vessel. The vaginal nozzle of a Davidson's syringe is then placed in the rectum, and alongside of it the rectal or smaller nozzle. The injection is made through the vaginal nozzle, and the return flow comes through the rectal. The stream should be kept up for ten minutes. The injection should be repeated every two hours until the active stage is past.

DIPHTHERIA AND CROUP, WHAT ARE THEY?—Sir John R. Cormack (*Edin. Med. Jour.*, Sept., '76), after an extended examination of the facts, answers the above question as follows: Diphtheria is, and croup is not, a disease. What is croup? Only a word—a word which originally meant stridulous breathing—a symptom of laryngismus stridulous, laryngitis striduloso, laryngo-tracheal diphtheria, and some other affections—a word which in different countries has drifted into different meanings; a word currently applied by British authors to diseases essentially distinct in their pathology; a word, therefore, which, from the confusion it creates in British and international literature, ought to be removed from medical nomenclature. It is not necessary to find a substitute for the word *croup*, all the various diseases which it embraces having their own appropriate and separate names in all languages.

WATER—METHODS FOR ITS USE IN FEVERS.—The methods of Wintermitz are given (*Med. Record*), in substance as follows:

Simple Ablution, or sponge bath, is indicated when the temperature is not over 101° or 102° F. When used in a higher fever it is principally for its effect as a nervous stimulant. It also prepares the skin for more potent measures. It must be repeated every half hour, and accomplishes the result only in a very unsatisfactory manner. It will produce elevation rather than lowering of temperature, if not followed by a more potent measure.

Friction Bath is more useful. To apply it the head is first cooled, to prevent the cerebral congestion which would otherwise follow. The patient is then wrapped in a sheet wet with water at a temperature of 62° to 53° F. Rubbing the skin gently also increases the amount of evaporation more than fifty per cent. This bath has the advantage of being purely a nervous stimulant. It causes dilatation of the blood vessels of the periphery of the body, and must have, as a matter of course, a great influence upon the action of the heart. If used in children in the early stage of eruptive fevers, the exanthem will appear in full view, thus rendering the diagnosis certain in some cases in which it was previously uncertain. It is especially serviceable in acute articular rheumatism.

The Half Bath must be continued from twenty to thirty minutes, and the temperature should not be lower than from 65° to 54° F. It may be assisted by pouring warm water over the neck, chest and back. The half bath is preferable to the full bath. In the full bath the weight of the water prevents proper reaction. The disadvantages of too cold a bath are that colder the water used the quicker the reaction and the sooner the return of the fever heat and the sooner exhausts the patient.

A patient should never feel chilly while in a bath, and as soon as the skin begins to assume a bluish color he should be at once removed. The principal rule to be observed in the use of water is to methodically repeat whatever method of application is used, and neither during day or night permit the continuance of a high temperature for much length of time.

HOT BATHS—RULES FOR USING, ETC.—Prof. Laseque *(Med. Press and Circular)* gives the following rules for the use of the hot bath :

No hot bath ought to exceed twenty to thirty minutes in duration. The initial temperature ought always to be lower than the final temperature, and the increase of temperature should always be gradual. A maximum temperature is 103°, but four or five degrees more can be endured if the patient does not remain in it longer than eight to ten minutes. On leaving the bath the patient goes to bed and loses the sensation of unusual heat. Cold douches are not well borne after hot water baths. Chronic rheumatic arthritis is much benefited by a prolonged course of hot baths. A similar mode of treatment has been found useful in chronic abdominal complaints—as protracted diarrhœa—and even in obstinate chronic bronchitis.

CROUP AND DIPHTHERIA—THE ANALOGIES INDICATED BY THE REGISTRATION TABLES OF PHILADELPHIA SINCE 1868.—These tables (*Transac. Penn. Med. Society*, 1868,) show that both croup and diphtheria destroy a small proportion more of females than of males. Both prevail to a moderate and proportionately equal extent during the first year of life. Both to about double the extent from the first to the first to the fifth year that they do in the first. Both diminish rapidly from the fifth to the tenth —croup more rapidly than diphtheria—while diphtheria continues to be accredited with an occasional victim up to years of maturity, and croup only with an exceptional one. Both prevail during the winter months more especially, and their fluctuations are very nearly simultaneous.

READY METHOD FOR ADMINISTERING FLUIDS WHEN THE JAWS ARE FIRMLY CLOSED.—Dr. F. G. Burrall (*Med. Record*, Feb. 19, 1876) says that when the jaws are firmly closed there is an opening bounded by the molars, the body of the superior and ramus of the inferior maxilla. If on either side the cheek is held well out from the jaw, a pocket or gutter is formed into which fluids may be poured, and they will pass into the mouth through the opening behind the molars, as well as through the interstices between the teeth. When in the mouth they tend to create a disposition to swallow, and by this method a cônsiderable quantity of liquid may be promptly given.

Physiology.

FLOW OF BLOOD THROUGH CAPILLARY TUBES.—M. Haro (*Med. Examiner*, Nov. 1876), says, that he has succeeded in constructing tubes of small diameter, suited for experimentation respecting the flow of blood. He found that:

1. Heat much increases the flow of defibrinated blood, and this effect is much increased as the corpuscular element is larger, whilst on the serum heat has the same action as on distilled water. Thus heat diminishes the resistance of the blood to the vessels.

2. Carbonic acid retards the flow of blood most decidedly—and thus accounts for the fact that excess of carbonic acid in the blood obstructs the capillary circulation, slackens the pulse, and increases blood pressure.

3. Pure sulphuric ether retards the flow of the blood, hence the indication for the use of ammonia as a restorative in poisoning by ether.

LYMPHATICS OF THE LIVER.—A. Budge *(Ludwig's Arbeiten, Band X., London Med. Record,* Dec. 15, 1876), gives his conclusions from his injectional experiments in the peri-vascular spaces of that organ. A closed system of lymphatics exist in the liver which is in intimate connection with the venous blood vessels. The blood capillaries of the lobules are surrounded by lymphatic sheaths, which prevent any communication of the blood with the liver cells, except by passage through them. Like the capillaries, the lymphatic sheaths, before exit from the lobules, unite to form larger trunks, the lymphatics, which afterwards are enclosed in the walls of the veins, and by means of the inter lobular system send the lymph upwards to the lymphatics of the diaphragm and downwards into that of the hilus.

STIMULATION OF THE CRANIAL DURA MATER AND ITS RESULTS.—M. Bochefontaine *(Lancet,* Dec. 1876), in a recent note to the Academie des Sciences, reports the results of a number of experiments, which he had performed upon the dura mater of etherized, chloralized and slightly curarized dogs, a portion of whose skulls had been previously removed. The sensibility of the membrane was determined by the cries of pain and the general movements excited in the animal by its irritation. Slight scratching with the point of the forceps upon the portion covering the central line of the middle of the uncovered hemisphere caused movements of the eyelids and ear, and deviation of the noise towards the same side. A stronger irritation aroused a simultaneous movement of the limbs of the opposite side of the body, while a still stronger one caused motion on both sides of the face, and in all the limbs, although the greatest action was present in the extremities situated upon the same side as the irritation. To remove all chance of error, the experiments were repeated after the membrane had been separated from the gray matter by the removal of the latter, and the subjacent white substance of the entire sigmoid convolution and the results were identical. Division of the dura mater into four segments was also tried, and on pinching the anterior one

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with the forceps, corresponding movements of the limbs, or only of the orbicularis palpæbrarum occurred, the same as when the membrane was merely scratched; but compression of the outer and posterior one aroused no movements of the face, and only those of the extremities and other parts of the body, while on pinching the inner segment near the falx cerebri, no movements whatever were excited. From these facts it is concluded that the transmission of the irritation of the cranial dura mater is not by means of sensory nerve fibres coming from the opposite side, and that the results are not due to any accidental stimulation of the subjacent grey cortex. The course taken by the irritation to reach the nerves of the excited muscles is one not easy to determine, except for the facial movements, since the nerves in question can receive their stimulation at the point where they pass through the membrane, but for the nerves which produce the movements in the side of the body corresponding to the experiment, the irritation is evidently not such a direct one, so that when all four limbs are moved we must conclude that the irritation is transmitted both directly and by decussation to both sides of the cord.

WOUNDS OF THE SPINAL CORD. (*Piccolo and Sirena Gior di Scien. Natur. ed Econ. Palermo Vol. xi, Lon. Med. Rec.*, Jan. 15, 1877.) Professors G. Piccolo and S. Sirena, in the results obtained from a long series of experiments, have made an important contribution to the physiology and pathology of the spinal cord. Their experiments were made upon dogs, rabbits and pigeons, (especially upon the former,) with the following objects:

1. To ascertain whether sensibility to touch remained, or was destroyed after section of the posterior columns. (These experiments were made on dogs.)

2. To study the disturbances of sensation and motion, as well as the pathological changes of structure consecutive upon partial or total division of the cord.

Except in three cases, where the spinal cord was laid bare, they divided the cord by the subcutaneous method, which is performed by introducing a long, narrow, double or single-edged tenotome through the inter-vertebral foramina into the spinal canal. Its entrance is indicated by a cry of pain and a tetanic shock. A short time was allowed to pass before observations were taken, as immediately, or soon after the operation, the results were the same, no matter which position of the cord had been cut.

The following are the results:

1. Tactile sensibility and that to pain are conveyed to the encephalon by the grey matter.

2. The posterior columns are not the conductors of tactile sensation, and still less of pain.

3. The paralysis following all lesions, complete or incomplete, of the posterior half of the cord, (in the cervical, dorsal and lumbar regions,) perceptibly improved after a longer or shorter time.

4. Very limited co-ordinate movements may be performed, although the limbs are absolutely without sensation.

5. After division of the anterior half of the cord, motor power is more or less completely re-established after some weeks.

6. After lesion of the lateral columns of one or both sides in the lumbar region, no alteration of any kind in the movements of the posterior limbs could be observed after cicatrisation had taken place.

7. After analogous lesions in the cervical region, the movements of the thorax and limbs were re-established. Hence, the lateral columns in the cervical regions have no special influence on the respiratory movements, and in this region, as well as in the lumbar, their place may be supplied by the anterior columns and *vice versa.*

8. The voluntary motor impulse follows a direct course in the lumbar region of the cord, and a partially crossed one in the dorsal, (at least in birds).

9. Sensory stimuli are not conveyed to the brain along the cord by a predetermined way, that is to say, by direct conductors in each half of the medulla, but decussate more or less completely, so that both sides indifferently join in conveying the

impression to the encephalon, passing through the grey commissure.

10. The lower portion of the intestine—with the exception of the sphincter ani—is, at least in dogs, innervated by the great sympathetic; unless, along with paralysis of the hinder limbs there have also been paralysis of the last portion of the rectum.

11. The sensory and motor nerves of the uterus are derived from the great sympathetic, and not from the sacral.

12. The nervous supply of the bladder and its sphincter is derived from the sympathetic.

13. The roots of the cervical sympathetic proceed from the cervical portion of the cord.

14. After severe compression of the medulla in the lumbar region, the first effect observed was paraplegia, analogous to that produced by section of the posterior part of the cord, but differing from this in the quickness with which motion and sensation were re-established.

15. There are not in the grey substance of the cord, portions specially charged with the duty of conducting sensory impressions, nor portions which exclusively transmit motor impulses, but they act concurrently with the white substances of the antero-lateral columns. Besides, if any portion of the grey matter, however sclerosed, maintained the continuity of the grey axis of the medulla, sensation is preserved in the limbs behind the lesion; and in them, indeed, coördinate movements take place if the anterior or lateral columns be uninjured.

16. All the partial lesions of the cord which give rise to hyperæsthesia are not yet accurately known.

17. Wounds of the medulla made by the subcutaneous method, are not followed by severe pathological disturbances.

18. In all the vivisections, including those in which the animals were kept alive up to the fifth month, there was no evidence of reproduction of nerve substance. The two portions of the cord were always found united by cicatricial tissue; whose cells as well as fibres had their greater diameter transverse to the axis of the nerve tubes.

Surgery.

New Method of Amputating at the Hip Joint.—Mr. Newman (*Glasgow Med. Jour.*, Oct., '76,) presents a new plan for controlling the hæmorrhage in amputation at hip joint. He uses a knife so constructed as to have at its back two moveable pieces of steel nine inches long. When the knife is passed through the limb to make the anterior flap, an elastic band is passed from one end of one of the moveable pieces to the other end. This effectually compresses all vessels. In like manner the posterior flap is treated, so that there is little loss of blood during the operation. The sections being made, the surgeon can secure the arteries at his leisure.

Postpharyngeal Abscess in Children—(*Jahob, & Kinderheilkunde, Band X., Heft 1 and 2; Lon. Med. Record,* Nov. 15th, 1876).—The valuable paper of Dr. Bokai, of the Children's Hospital at Pesth, is based upon the observation of 144 cases of this affection, which occurred during the space of twenty-two years. One hundred and twenty nine were idiopathic; three were due to the burrowing of cervical abscesses; four were secondary to vertebral disease; seven occurred in the course of scarlatina, and one resulted from the impaction of a foreign body—a brooch. Besides these, there were forty-three cases of lymphadenitis retropharyngealis which terminated in resolution. The idiopathic cases were all believed to have originated in lymphadenitis. A large majority of the abscesses were situated laterally; only one-sixth occupied the middle line.

Etiology: Sex appeared to have no influence, except that three out of the four patients in whom it was secondary to vertebral disease, were boys; one hundred and thirty-four occurred under four years of age; eighty six in the first year; thirty-four in the second year, and fourteen in the third year. The youngest patient was eight weeks old. Thirty-two were distinctly scrofulous; ten, rachitic. It is not a frequent complication of scarlatina, since only seven out of a total of six hundred and sixty-four scarlatina patients were affected by it.

Symptoms: There is first a difficulty in swallowing (in infants, inability to suck), which may lead to regurgitation or vomiting of the food. Voice muffled or nasal, or when the abscess is fully developed, of a gurgling character; during sleep, the patient snores loudly. When the swelling is near the glottis, the respiration is greatly impeded, the child is restless, and frequently wakes in a choking fit. The position and extent of the abscess have the most influence upon respiration, but the small size of a child's throat, and the possibility of œdema glottidis, must be remembered. Increased secretion is a further hindrance. Cough is frequently absent, and when present is usually a late symptom. The neck is stiff, and, in the advanced stage, a prominence, which must be early felt for, may be seen near the angle of the jaw. The isthmus faucium appears narrowed, and is covered with viscid mucus. The pharynx and adjacent parts are very red, and a swelling of the same color and of the size of a bean, or larger, is seen on the posterior wall, usually behind one of the tonsils; soft palate and uvula are thrust forward. Negative results, on inspection, are not sufficient to exclude abscess. A certain means of diagnosis lies in digital exploration, which must never be omitted, as it gives an idea of the development of the abscess and of the distance it extends downward. Fluctuation may be felt by pressing the lump in the neck while the finger is on the abscess. Fever, in the beginning, in acute cases, is but slight, and, in the chronic and subacute, often absent; when the abscess is fully formed, it is present, but the temperature is rarely over 103° F., and the pulse is not very frequent, unless cyanosis sets in.

Prognosis: Of the one hundred and forty-four patients, thirteen were lost sight of, one hundred and twenty were cured, and eleven died. Of the fatal cases, five were of idiopathic origin, three of vertebral disease, two of scarlatinal and one of traumatic. It is probably fatal, unless surgical aid be given. Spontaneous bursting of the abscess must not be awaited. The prognosis is unfavorable when the child is very young or weak, when the course of the disease is very acute, or when the abscess extends very low down. The most important complication is pneumonia, which occurred in ten cases, in seven of which, the abscess having been opened, it probably arose from the admission of pus into the air-passages. Facial paralysis occurred in three cases; perforation of the external meatus, in one.

Treatment: In lymphadenitis, apply cold compresses, and if the case be acute, change them frequently; small pieces of ice may be swallowed, and, in the very young, iced water may be syringed against the pharynx. As soon as pus forms, poultices or warm compresses must be substituted, and, when the abscess is fully developed, it must be opened. Frequently the pressure of the finger is sufficient for this. An ordinary sharp-pointed, light bistoury, guarded or not with strappings, is the usual instrument, but if the abscess is very low down, a curved trocar is better. The after-treatment consists in syringing out the throat with lukewarm water, and in maintaining the incision patent by the occasional pressure of the finger. Hemorrhages should be arrested by cold injections; but in operating, the proximity of the internal carotid arteries must not be forgotten. Abscesses in connection with vertebral caries should not be opened unless they offer a serious impediment to respiration or deglutition. In none of his cases did he deem it advisable to open the abscess from outside, though it is allowed that such a course may be sometimes necessary. (*Monthly Abstract*, Jan., 1877.)

TREATMENT OF UMBILICAL HERNIA IN CHILDREN.—(*Paris Medicale*, Oct. 12. *London Med. Record*, Nov. 16, 1876).—M. Archambault takes a piece of white wax, which he softens and rolls between his fingers; this ball is split in two, so as to form two hemispheres. One of these, of a size proportionate to the extent of the umbilical depression, is placed with the convex surface in the depression, and maintained there by a piece of strapping. For wax may be substituted gutta-percha, softened in warm water. At the end of two hours the body will be sufficiently moistened to adhere to the skin. From this time no bandage is required.—(*Monthly Abstract*, Jan., 1877).

TRAUMATIC TETANUS CURED BY NERVE-STRETCHING.—(*Centralbl. f., Chir. No. 40, 1876. Chicago Med. Jour. and Examiner*).—Prof. Vogt, on the 16th of last Sept., was called to a stone mason, aged sixty-three years, who was suffering from a continuous lock-jaw, violent attacks of opisthotonos and clonic spasms, while the lower extremities excessively rigid. Three weeks previously the mechanic had had his right hand severely injured by the fall of a heavy stone, which had produced a large flap wound of the palm, and a smaller one of the back of the hand. These, however, had nicely healed, and at the time of his visit, the Prof. could find no tenderness, on pressure upon the cicatrices—no painful spots in the course of the nerves of the forearm or arm—but a sensitiveness so great in the region of the brachial plexus, that the slightest touch produced convulsions, as in spite of all treatment, the patient had been daily growing worse. Vogt, recalling the successes of Nussbaum, Billroth, himself and of others, determined to resort to traction upon the brachial plexus. The palmar cicatrix was first cut into and freed from the aponeurosis and tendons, and as no foreign body was found, a longitudinal incision was then made parallel to the anterior border of the trapezius muscle, and in the triangular space between the trapezius, omohyoid and scalenus muscles, to expose the plexus. The sheath of the nerves being severed, a blunt hook was passed under them to lift them from their surroundings. The flexed forefinger being then substituted for the blunt hook, energetic tractions were made on the central as well as the peripheric portions of the nerves. The sheath of the nerves, looking exceedingly hyperæmic, was split up as far as the inter-vertebral foramina. A drainage tube was put in, and the wound dressed antiseptically. When the patient recovered from the narcosis, the tetanic rigidity and spasms of the muscles had entirely disappeared. Besides a little morphia at night, no other medicine was used. No disturbance of motility or sensibility was noticed afterwards by the patient in his right arm.—*N. O. Med. and Surg. Jour.*, Jan., 1877.

NEAR-SIGHTEDNESS IN THE PUBLIC SCHOOLS—(*Med. Record*, Jan. 20, 1877).—Dr. C. R. Agnew, with the assistance of several physicians of Brooklyn and Cincinnati, has examined the eyes of a number of children of the public schools, with the object of discovering whether his statistics would agree with those of Cohn. The professor of Breslau published, many years ago, his reports in respect to the existence of myopia among the school children of the surrounding villages, and of the schools and university of the city itself. The amount of near-sightedness among the children of the villages was very small—not exceeding two per cent. This result he preserved as a basis for further operations, assuming that two per cent. indicated as near an approach to the normal eye as could be found anywhere. Accordingly, continuing his observations, he found through all the schools, as they rose in grade, a progressive near-sightedness until the university was reached, where it was found in the appalling ratio of sixty or seventy per cent. The more nutritious food of the children, the better sanitary construction of the school houses, and the less severe system of education in this country, were supposed by many to be potent factors in the prevention of any like ratios in the United States. But when the examinations were made, and the observations summed up, a striking correspondence between those of Breslau and New York, Brooklyn and Cincinnati, was observable. The last three cities were chosen for the examinations, as they represent to a certain degree, the conditions of Breslau and the neighboring villages. Of the 1479 students examined, 630 were of Cincinnati, 549 of New York, and 300 of Brooklyn. In the first named city, in the district schools, the near-sightedness rate was 10 per cent.; in the intermediate schools, 14 per cent.; and in the normal high schools, 16 per cent. In the the second city, in the New York college, the myopic rate in the introductory classes was 29 per cent.; in the freshman class, 40 per cent.; in the sophomore, no difference from what was observed in the preceding classes, but in the junior class, the rate was 56 per cent., and in the senior class, 37 per cent.

Of the students examined at the Polytechnic Institute, Brooklyn, near-sightedness was found in 10 per cent. of the eyes in the academic department, and 28 per cent. in the collegiate department.

Now, if in a first-class organ like the eye, examined during early life and childhood, and even in middle life, we find that its great employment produces or aggravates a diseased condition, may we not justly infer, for organs that are not so transparent as the former, that similar damage may be done to them during the same period of life, without our being able to detect these changes? This thought he believes to be fruitful in future great results.

Obstetrics.

IODIZED PHNOEL—A NEW UTERINE ESCHAROTIC AND ALTERATIVE.—Dr. Robert Battey (*American Practitioner*) has found this so satisfactory in his own experience, and in the reports of his gynæcological friends that he offers it as a promising addition to our armamentarium. He gives the following formula for its preparation: Iodine, one half ounce, and crystalized carbolic acid, one ounce. Mix and combine the two by gentle heat. As an application to uterine cancer he has found it efficient and painless, when the healthy parts have been carefully protected. The applications are made upon lint or cotton, saturated with the remedy and surrounded by a cotton tampon to protect the sound parts.

In chronic afflictions of the cervix, the cervical canal and the endometrium, uterine hypertrophy and subinvolution he has found the following useful: Iodized phenol, one and a half ounce; crystalized carbolic acid, one ounce; water, two drachms. Mix and make solution. It has been used both in its full strength and in various dilutions with glycerine; sometimes two-thirds the above strength, sometimes one half, one-third, and even one-fourth.

It is applied by means of a bit of lint cotton securely twisted upon the end of Budd's elastic probe, which having been saturated is carried up to the os internum, and once or twice saturated. He has also wound cotton to the size of a uterine tent and saturated it with the liquid, passed it into the uterus by means of an elastic probe, and allowed it to remain there for twelve or twenty-four hours. Sometimes he has dilated the cervical canal with sponge tent and mopped out the interior of the uterus with the liquid. The applications are ordinarily made three times in the intermenstrual period, rarely oftener, sometimes but once or twice each month.

RETENTION OF URINE IN FEMALES—(Dr. Dollmayr, *London Medical Record*, Dec. 15th, 1876.)—Dr. Dollmayr refers to a form of retention only met with in elderly females who have long ceased to menstruate. The first sensation is a burning symptom at the external meatus during micturition, which is slight at first, but which gradually increases in intensity until it resembles the pain which a red-hot needle passed along the whole course of the urethra would excite. The stream of urine is soon diminished in size, and in time there is great difficulty in emptying the bladder. The examination of a severe case of this kind shows the external meatus filled with ruddy excrescences, which bleed freely on contact. The author attributes this condition to a continued inflammatory action set up and continued by some local cause of irritation until this polypoid state is attained. Applications of nitrate of silver or of sulphate of copper destroy the growths and the pains disappear.

DILATATION OF THE UTERUS.—(*Med. Reporter—Canada Lancet, January* 1877.)—Dr. Lombe Atthill, before the British Medical Association, said that after examining the records he had found that unpleasant or dangerous symptoms followed dilatation only in the following sets of cases:

1. Either for the relief of dysmenorrhœa depending on the existence of a narrow cervical canal;
2. When the cervical canal is encroached on by a fibroid of large size and unyielding structure;
3. When the process has been attempted to be carried out rapidly by means of metallic dilators, or
4. When it has been protracted over several days.

He has laid down the following rules for his own practice and considers dilatation as very innocent in all other cases where it is indicated:

1. Never to dilate the cervix uteri for the cure of dysmenorrhœa or sterility depending on a narrow cervical canal or conical cervix.

2. Never to dilate in cases in which a large and dense intramural fibroid presses on and partially obliterates the cervical canal.

3. Never to use metallic dilators of any kind, but to choose for the purpose either sponge or sea-tangle tents, which expand slowly and gradually.

4. Never to continue the process of dilatation for more than forty-eight hours. If the cervix is not then dilated, postpone the operation for a few weeks.

Editorial.

NOTICE TO CORRESPONDENTS, ETC.—Communications intended for publication, and books for review, should be addressed to "Editors of Detroit Medical Journal, care of E. B. Smith & Co., Detroit."

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Original Articles, Reports of Medical Societies, Observations, Correspondence, News, etc., of general interest, are respectfully solicited from every source. Articles should be practical and carefully prepared.

The Editors will not be responsible for statements made over the names of contributors.

Annual Meeting of the Alumni of the Detroit Medical College.

This is the season of "Commencements," and in conformity to a habit which has of late years taken such a hold as to have become an established custom, the alumni of different medical colleges are wont to flock in from all points of the compass to sit down for a brief season within the walls of their *Almæ Matri*, to welcome to the professional ranks recent graduates, and to strike hands in glad re-union with those with whom in days gone by they formed those lasting attachments of student life. An occasion of this nature took place on the evening of February 27th, when the alumni of the Detroit Medical College celebrated their ninth annual re-union at the Biddle

House. There was a large representation present, not only of alumni, but also of members of the profession of this city and state, who had been invited to join in the festivities. The *menu*, which was of a high order of excellence, and tempted sorely to gastronomical excess, the music, which was of that ravishing nature for which Prof. Bishop's orchestra is so famous, and the happy repartee and flow of soul, all combined to make the occasion one of the most notable social events of the season.

After the banquet Dr. David Inglis, the retiring President of the Alumni Association, delivered the following address:

Fellow Alumni of Detroit Medical College:

In coming before you to-night to perform the last act of my office as your President, to bid you farewell, I cannot but again thank you most sincerely for the great honor which you conferred on me in choosing me for your President. I cannot interpret that honor except as a mark of your friendship, and as such I have valued it and will always remember it.

Before I take my place again in your ranks let me call to your minds a few thoughts which suggest themselves to us in connection with this return to our Alma Mater, and whose recollection may serve to keep fresh in us our love and esteem for her. When we first left her, many of us at least, did not fully appreciate what benefits she had conferred on us. Filled with the enthusiastic ambition of youth, and only looking forward eagerly to our opening professional life, we scarcely had room in our thoughts for a true appreciation of the influence which our Alma Mater had exerted upon us. But I feel sure I speak the thoughts of every one of you when I say that only when we were fairly launched in our new career, and felt the immense responsibility of human life in our hands, that we felt how much she had done for us in furnishing us with weapons, and in training our minds to wield them in the continual conflict with death; then only, I say, did we look back and feel fully grateful to her, without whose aid and instruction we would constantly have come off vanquished. Hence comes it that often our love of our Alma Mater seems to grow with each year that separates us from the time when we bade her farewell. And not only do we have to thank her for the practical instruction (and few colleges can boast of giving as much really practical instruction) which we received from her, but we have to thank her even more for the unseen but powerful influence which she exerted in our minds in infusing a spirit of noble ambition and fraternal emulation, so that under her shadow we were constantly urged to press up higher, not by pushing others down, but by developing to the utmost our own powers. Only those of us who still remain in her close proximity can fully estimate what an influence such a center of learning exerts. We can see the leaven working, not only among the alumni, but among the entire profession. Professors, students, and all those who in any way, even in the daily routine of professional life, come in contact with her, feel the stimulating influence. The entire medical profession in proximity to such a center of medical study is elevated and stimulated by it. This fact has constantly been observed in regard to literary colleges, so that towns in which they are situated acquire a higher and more cultivated literary character. The tone of society is more refined; and ultimately such towns attract to them a large literary circle quite unconnected with the colleges themselves, but who find the atmosphere which goes out from, and the society which grows up around them, to be congenial to their minds. Who ever thinks of Oxford, Cambridge, or New Haven without a pleasant idea of the culture to be found in those seats of learning; outside, too, of the college walls?

Even more marked is the influence of a medical college upon the medical men in her vicinity. Physicians of all ages alike come under its sway. The older men, full of the ripe knowledge gleaned from long practical experience, and with minds trained to perceive quickly, under its influence keep fully abreast of medical progress. The younger men are urged not to rest satisfied with what they have learned, but by steady industry to move forward. Their ambition in such surroundings has a chance of bringing to them fame as original investigators. Here are accessible the clinics, the *post mortem* room, the dissecting room, and the laboratories, without which the most ambitious may strive in vain, for lack, not of intellect, but of the very tools of medical study. It has almost always been amid such surroundings that the great advances in medical science have been made. And this ennobling influence calling out a worthy ambition to excel is not confined to those directly connected with the college, but radiates in all directions, spreading with us as alumni wherever we go. It is the source of the noble *esprit du corps* which binds the whole medical profession together.

I would fail in recounting the benefits of our Alma Mater did I omit to mention the social pleasure which such reunions as this bring to all of us who can come together to see the old faces and again grasp the hands of old comrades. It is one of the hardships of our profession that it is often difficult or impossible for us to leave our patients, even for such a pleasure as this; but I am sure that those who to night are absent in the body are here with us in sympathy, and in our hearts we send them greeting.

And now, on behalf of the older alumni, I extend to our new brethren of the graduating class a most cordial welcome into our ranks. We rejoice to number you amongst us. as I have no doubt you, too, after the ordeal of examinations which you have just passed, rejoice to have got here. We welcome you as benedicts traditionally welcome new converts from the grand army of bachelors with a little smile, as much as to say, "It's all rose-color to you just now, but wait awhile."

Yes, brothers, you now step into a profession which presents strong contrasts of light and shadow. Often you will feel the darkness so dense that you will think there is no way out of it—the daily, never ending routine which keeps us constantly on the treadmill. It matters not how wearied we may lay ourselves down to sleep, the inexorable tinkle of the night bell is a summons which must be heard; and after a weary night, or, as often happens, a succession of weary nights, there comes no pleasant afternoon *siesta*, until often the exhausted body cannot sleep, even when opportunity offers.

No chance to run off for a holiday, either. When we are away the patients grumble, or go off to some other doctor and stay there when we come back, and then we have to add to unpaid doctors' bills a sort of *indirect damages* item, which seems, by its unknown quantity, even more formidable than the former, which is generally large enough. But these shadows are not the Egyptian darkness which sometimes surrounds us. That comes when we enter on the hand-to-hand struggle with death, when we fight every inch and are driven backwards, when we see our efforts to cure fail, when we lie all night thinking cannot something else be done, and feel ourselves routed.

Do you think I present you a disheartening picture? No. The darkest cloud has a golden lining, When the hand-to-hand struggle ends with our defeat we have the glory of having fought well with the mightiest enemy of mankind, but who that knows the feeling of intense exultation when after a hard fight we come off victorious does not ever after take courage from it. What is the pleasure of ease and luxurious living to the joy of such a victory, and then there are times when we are not so oppressed with the care but that we can enjoy the frank social intercourse which exists between us and our patients. In no profession is there such abundant opportunity to make many friends, and those friends true friends, as in the medical. In no profession such an open field for well doing. If there be many unpaid bills, there are on the other hand many bills paid with a "thank you," which means much and gives one courage. Then they are the thank you's of those who would pay in coin if it was to be had, but whose gratitude is as valuable as coin. The "hullo Doctor," with which little urchins greet us on our rounds, pays for much anxiety which those same urchins may have caused us. We welcome you cordially to a profession of which Dr. Bennett said: I know of no calling more practically engaged in acts of charity—in an abnegation of self, a desire to do to others what we wish others should do to us, and an endeavor, if occasion requires it, to afford all those consolations which a pure Christianity can alone impart. And to our friends who have come to honor and encourage us by their presence, let me also, on behalf of the alumni, bid you a hearty welcome.

Dr. E. W. Jenks, President of the College Faculty, then read a list of the regular toasts and introduced the several speakers in the order following:

The Future of Medical Education in the Northwest:

Response by Prof. S. G. Armor: What is demanded of the medical profession is a higher standard of professional acquirements, and, first of all, preliminary training, especially of a literary character. This is one of the advancements for which the medical colleges must be held responsible. He could see that there had been a gradual elevation of this standard during the years which he had been in practice, and it afforded him genuine pleasure to be able to bear testimony to so important a fact. He thought it important that students be educated symmetrically, and to accomplish that the medical colleges ought to be located in the great centres of commerce and population. This was essential from the very nature of the study, and it was only in those centres that the needed clinical material could be procured wherewith to make medical education at least theoretically thorough. While urging the great importance of so locating medical colleges, he was not unmindful of the fact that after all the more practical education was to be found at the bedside, and in constant observation of the ever varying forms and conditions of disease. Detroit was the place of places for a medical college in Michigan. He had expressed that opinion when the question of establishing the College was first agitated, and he had no intention of backing down from that position now. Detroit is rich in the character and reputation of her younger class of men, and she could boast a very able body of medical teachers. One pressing need, however, was better college buildings. Detroit ought to take pride in her public institutions, and by that token she ought to have a college edifice worthy of her position as the metropolis of the State. Dr. Armor also called attention to the need of better laboratory facilities, upon the value and practical use of which he dilated at some length, and summed up with the general remark that there were all about the most convincing proof of great growth in medicine, both as an art, and as a science.

Law and Medicine:

Response by Chas. A. Kent, Esq. Mr. Kent began with a humorous allusion to the relations between the representatives of the legal and medical professions, and then said in substance that the law ought to recognize the great fact that the first thing for a State to do is to provide for the health of its people. Just how that was to be brought about was difficult to say, but one thing he had no hesitation in saying, the superstition attaching to the procuring of subjects to aid in the practical demonstration of anatomy ought to be wiped out. That was a necessary part of the study of the science of medicine and the sooner the public learn to recognize that the better it will be for all concerned. Every possible facility should be freely accorded for the study of disease, in order that the laws which govern it (for he did not doubt the existence of such laws) may be better understood. The State should take control of the admission of members to the ranks of medicine, but first the profession itself must agree upon some standard of requirements. Until that shall be done there can be no wise or helpful legislation on the subject.

Medical Journalism:

Response by Dr. J. J. Mulheron: The Doctor spoke of the value of medical periodicals and thought that the general patronage of them was *prima facie* evidence of their usefulness. The medical journal is the repository of much learning, and he believed that medical men had caught the true spirit of the time in publishing and maintaining those journals. They want their news fresh, not from idle curiosity, but that they may take advantage of new discoveries for the benefit of humanity.

Our patients:

Response by ex-Gov. J. J. Bagley in one of the happiest and most entertaining efforts of the comfortable ex-Governor's lengthening list of happy post-prandial efforts. He said that were it not for the fact that he weighed 275 pounds he might almost believe himself a ghost suddenly come to life in the midst of a few hundred doctors ready to dissect him. And that reminded him of the soldier who, awakening from a long spell of unconsciousness, saw a dozen surgeons bending over him, exclaimed: "Gentlemen, if you propose to fire by platoons I surrender." The request that he should respond to this toast had been like a firing by platoons and he had surrendered at discretion. The Governor continued in a similar vein for some time, and concluded by indorsing Dr. Armour's thought that the standard of medical education cannot be made too high, too noble, too grand, too pure. It ought to be the aim of all to make the profession just as exalted as it is possible to make anything human. Its members owe that to themselves and they owe it to their patients.

The Success of Medicine, the True Basis of the Art:

Response by Dr. N. W. Webber, who reviewed the progress of medical science, pointing out the results which had been gained from time to time, and showing how truly beneficial the science and the art of medicine have been and are to the race. Those results were eminently practical, and as civilization advanced and the truth was spread abroad, they could not fail to redound more and more to the honor of the profession and the amelioration of human suffering.

The Detroit Medical College Charities:

Response by Dr. J. Henry Carstens, who gave an interesting statistical account of the benefits conferred by those charities, which are the direct outcome of Detroit Medical College. About 8,000 patients had been gratuitously treated in them in addition to 11,000 prescriptions, which had been made up and given away at the expense of the College, to say nothing of the thousands of cases of free vaccination. He estimated the College had contributed about $35,000 in medicines and professional services to the afflicted poor of Detroit.

The Family Physician:

Response by J. B. H. Bratshaw, who declared that the conscientious physician was the true hero, as well as the best and gentlest friend a family could have. His monument was not built of granite, or marble, or bronze, but of loving, grateful hearts.

This ended the regular toasts, but Rev. M. Hickey, in response to a call by Dr. T. A. McGraw, made a characteristically pointed speech. He held medicine and law and gospel ought to go together. As a clergyman he could never get along well trying to preach purity of heart, sanctification and growth in grace without the aid of the medicine men in this bilious climate. Just now he was paying especial attention to cold water and its uses as symbolized in the Red Ribbon movement, and he could not let this opportunity go by without invoking the aid of every physician present in that grand effort to save men from themselves.

At the close of Mr. Hickey's remarks the reunion was brought to an end, and soon afterward the good nights were spoken.

The commencement exercises were held on the following evening at the Detroit Opera House, and if a house crowded to excess with the *elite* of the city, a high order of diction in the addresses, and a superior quality of music, with flowers and bouquets in profusion, make affairs of this kind a success, then was this commencement emphatically successful. The address of Prof. Connor and the poem by Rev. Dr. Stocking are published elsewhere.

J. J. M.

Memoranda.

Buffalo has a bogus diploma manufactory.

The use of chloroform as an anæsthetic is forbidden at Bellevue Hospital, New York.

An obstetrical society has been organized in Cincinnati. The number of active members is limited to twenty. Dr. J. J. Quinn was elected president.

Graduates of American Medical Colleges for 1877:

Bellevue Hospital Medical College	147
University Medical College	157
Louisville Medical College	135
Ohio Medical College	80
College of Physicians and Surgeons, N. Y	118
Detroit Medical College	30

The new Jefferson Medical College Hospital cost, exclusive of the land, about one hundred and fifty thousand dollars. It is said to be a very perfect model in all details.

The Lyon *Medicale* relates the case of a woman who has been married nine years, and given birth to twenty-four children. All were born three at a time, are in perfect health, and are girls.

Sir Jas. Wylie says that on the dark side of an extensive barrack at St. Petersburg the cases of disease have, for many years, been uniformly in the proportion of three to one to those on the side exposed to strong light. Let human bodies have life-giving light.

The ninth Annual Commencement of the Detroit Medical College was held in Detroit Opera House, Feb. 28th. A crowded house enjoyed the exercises of the evening, viz., the excellent music, the conferring of degrees, the address by Leartus Connor, M. D., and the witty and instructive poem, by the Rev. C. H. W. Stocking, D D., of Detroit.

In working the scoriæ at the mines of Laurium, a species of Glaucium, once described by Pliny, but not known for fifteen hundred years, sprang up in abundance. Seeds which were formed fifteen or twenty centuries ago, reproduced their kind—a fact rivaling the famous mummy wheat.

Dr. Gordon Buck died at his home in New York city, March 6th, 1877, aged seventy years, nearly. Dr. Buck was noted for his professional honor, his integrity of character, his consistent christianity, and his devotion to his family. His labors in connection with the hospitals of New York and with various improvements in the art of surgery are well known to most of our readers.

There have been many views as to the cause of the excessive infant mortality from summer diarrhæa, viz., impure milk, water-logged subsoil, solar heat, and choked sewers. By experiments Baginsky shows that each of these causes are but separate factors contributing to a common result—rapid decomposition of the infant's food. Putrescent, or rotten, food is the real cause of cholera infantum.

Dr. C. R. Agnew, of New York city, has, for a couple of years, been pursuing a series of investigations upon the influence of school life upon the eyes of the children. He had examinations made by competent observers in the schools of New York, Brooklyn, and Cincinnati. In each place a large number of children in primary, intermediate, and high schools were examined. The results were compared by Dr. Agnew. He found that near-sightedness increased with the grade of the school, the proportion being by far the greatest in the highest schools. In short, his conclusions are the same as those of Combe, of Breslaw.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

TRANSACTIONS OF THE OHIO STATE MEDICAL SOCIETY. 1876. Cloth; pages 200.

The editing of this volume is an improvement upon that of 1875, but there is still room for more care. It seems utterly inexcusable that so many errors in spelling should occur, as for instance, the name of the late president of the American Medical Association is spelled Symes, instead of Sims Nor is the paper or mechanical execution of the volume at all creditable to the representatives of a state so large and wealthy as Ohio.

The minutes of the meeting seem to have been carefully prepared, and in addition to considerable good medical work exhibit a sufficiency of ethical difficulties coming from several parts of the state. In so far as the state was concerned, the reform element was apparently in the ascendancy.

The retiring president, Dr. E. Williams, of Cincinnati, gave an address upon penetrating wounds of the eye. He spoke of the varied substances which have produced such wounds in the parts injured under different circumstances, the modes of recognizing the diverse injuries, and the appropriate treatment.

Dr. Wm B. Davis, in a report on vaccine and vaccination, presented a variety of facts and opinions embodied in letters from Hebra, Sigmund, Seaton, M. Guerin, Zeissl, Neumann, and Widerhofer. We quote the conclusions of Widerhofer;

1. Humanized vaccine lymph has not degenerated; on the contrary it is conclusively proven that when proper care has been exercised it is as perfect to-day in all its manifestations and as complete a protection against small-pox as in the days of Jenner.

2. Syphilis cannot be transmitted by humanized vaccine lymph unless syphilitic pus tissues or blood be mixed with the

vaccine lymph. When proper precautions are used such contaminations can be avoided.

3. Animal vaccine, particularly cow-pox lymph and regenerated cow-pox lymph, is difficult to take, unduly severe in its action when it does take, will not bear preservation or transportation with any degree of certainty, and does not afford the same degree of protection against small pox as humanized vaccine lymph. While it may not transmit syphilis it has transmitted charbon and typhus.

Dr. J. H. Pooley strongly recommends the use of Esmarch's bandage in minor surgery, such as in operations on fingers, toes, etc., hands or feet. He claims that it best enables the surgeon to recognize the particular tissues through which he is cutting, and avoids all soiling of the patient's clothes or the office furniture.

Dr. A. J. Miles describes a new forceps for breech deliveries exclusively, in which he claims to have obviated the usual objection to the use of forceps in breech presentations.

Dr. B. Trauber describes Schrotter's method of treating stenosis of larynx caused by syphilitic cicatrices. Briefly, it consists in gradually dilating the stricture by zinc cylinders. These cylinders are hollow, and fitted with a brass rod passing through and projecting from either end. At the upper end is a hole for the attachment of a cord. The whole instrument is introduced into the larynx and the rod withdrawn, the cylinder remaining in the stricture. This last is removed by an attached string which protrudes from the patient's mouth. Every twenty-four hours the bougie is removed and another larger introduced. The results from the use of this instrument are said to be most happy.

Dr. A. N. Read claims to have seen the reduction of the head in cases of chronic hydrocephalus by the application of glycerine and tinct. of iodine to the external surface of the head. The remedy is used twice a day, and the head covered with a closely fitting muslin cap.

Dr. T. A. Reamy reports seven cases in which he removed the neck of the uterus for cancer by means of a heavy, cutting, gouge forceps. The after treatment consisted in the application of a solution of bromine in alcohol, one part to thirteen. Two cases recovered perfectly, the rest were relieved, but ultimately died from the disease.

Dr. C. S. Muscroft gives a large and varied list of the various articles that from time to time have been found in the rectum. Among others a large cluster diamond breast-pin was removed from the rectum of a patient, who, during an attack of delirium tremens, placed it there to prevent imaginary robbers from taking it.

The concluding article is by Dr. E. B. Stevens, on Hot Springs, of Arkansas.

L. C.

FOURTH ANNUAL REPORT OF THE SECRETARY OF THE STATE BOARD OF HEALTH OF THE STATE OF MICHIGAN FOR THE YEAR ENDING SEPT. 30, 1876. Cloth, pages, 257.

The first sixty-five pages of this report contain an admirable summary of the work of the Board during the year Much of this material we have already published; still, as a whole, we have been greatly interested in re-reading it.

The plan for obtaining weekly reports from all cities of Michigan concerning prevailing diseases, has been in operation several months, and bids fair to greatly increase our knowledge of the geography of disease. The facts given with reference to an outbreak of typhoid fever at Port Sanilac indicate that the cause was a break in a sewer, so located as to permit the sewer materials to pass into a well. Seventeen cases were attacked, and four died of the disease. All but two drank from the infected well.

A history is given of typhoid fever outbreaks at Cannon, Kent Co., Mich., at Middle Branch, Osceola Co., Mich., at Weesaw, Berrien Co., Mich., and at Deerfield, Lenawee Co., Mich. The epidemic at the latter place could not be assigned to any other cause than water contaminated by the decomposing matter of a dead turtle. Decayed organic matter in connection with drinking water seemed the most important element in the causation of these epidemics.

The remaining portion of the volume contains twelve articles. Two of these are composed of the replies of correspondents relative to "Water Supply," and "Diseases of Michigan during 1875."

Dr. O. Marshall gives a detailed report of an epidemic of scarlet fever at North Lansing, Mich.

Dr. H. O. Hitchcock, in his annual address, presents achievements of "Hygienic Science and Art." He also makes a report on "Criminal Abortion."

Dr. A. Hazlewood has an article on "Vaccination," and one on "Water, and the Water Supply of Michigan."

Dr. H. B. Baker has an article on the last meeting of "the Health Department of the American Social Science Association," and on "Methods of Collecting Vital Statistics."

Dr. R. C. Kedzie has articles on "Means of Escape from Public Buildings in case of Fire," "On the Water Supply of Michigan," and on "Ventilation of Railroad Cars."

It will be observed that but four members of the Board contribute to this report. The Rev. Chas. H. Brigham, Rev. J. S. Goodman, and Dr. H. F. Lyster do not appear to have been very active in their service to the Board. As usual, the bulk of the work has been performed by Dr. Kedzie and the model secretary, Dr. H. B. Baker.

The President, in his annual address, estimates that by available hygienic measures, at least four millions of dollars could be saved to this state. A considerable portion of this loss he believes to have been caused by the use of alcohol. He proposes that a commission of four intelligent, capable and trustworthy citizens be appointed by the Legislature. The duty of this committee should be to examine into an investigation of all the elements of this question, and make such a report as could be used as a basis for legislation.

In his paper on "escape from buildings in case of fire," Dr. Kedzie advocates the adoption by hotels of *some means of escape from every room*, such as a rope ladder, or at least a knotted rope sufficiently long to reach the ground. This ladder should be securely attached to a staple by a window in every room. The doors of all churches, theatres, school rooms, etc., should open outwards. In New Hampshire and Wisconsin there is already a law requiring all such doors to open outwards.

The same investigator, in his paper on ventilation of railroad cars, makes some suggestions both practical and feasible for supplying cars with good air while in motion. There is no doubt that the atmosphere of the average passenger car is a prolific source of both discomfort and actual disease. We hope that Dr. Kedzie's suggestions may be considered by car builders.

In a paper on Michigan water supply, Dr. Kedzie calls attention to the influence of geological formation, to the purifying action of soil, to the influence of rainfall, to the sources of water supply, to contamination of water by decomposing organic matter, to the soil as a sanitary filter, and closing with a brief answer to the question "what water shall we use?"

He quotes Dr. A. Hægler, of Basel, Switzerland, as proving that "the poison of typhoid fever water was transmitted through nearly a mile of porous earth, and then became a cause of a remarkable outbreak of typhoid fever." From this and similar facts, it seems that the purifying power of the soil is limited, at best. The influence of graveyards, etc., on the character of water in adjacent wells and springs may be estimated from these. It is possible that such waters may be simply a cold infusion of death.

Dr. O. Marshall's account of an epidemic of scarlet fever, at Lansing, Mich., is an original contribution of importance to all students of this disease. It is so illustrated by maps, etc., as to furnish an unusually clear account of all attending conditions. The doctor shows that in this epidemic whatever cause had a tendency to lower the system, or produce an unhealthy condition of the body, made it more liable to take the disease; but whatever the surrounding circumstances were, or how poorly prepared the body was to resist it, whether from disease, age, sex, or bad sanitary conditions, few, if any, had the disease if perfect isolation was kept up. In well ventilated houses, when attention was paid to cleanliness of body, clothing, and premises, the disease was almost invariably of a mild type.

Lack of space forbids further quotation from the excellent report before us. We can but feel, that, as a whole, it is calculated to greatly advance the interests of public health, and all connected with it. L. C.

THE ELECTRIC BATH—ITS MEDICAL USES, EFFECTS AND APPLIANCES. By Dr. Geo. M. Schweig. Cloth. Pages, 130. 1877: G. P. Putnam's Sons.

This work gives the author's personal observations and experience concerning electric baths. These observations extend over a period of nearly three years. It is not claimed that the subject is mastered, only that a beginning is made towards its study.

The apparatus needed is first described—the tub, electrodes and connections, the water-chemicals and the batteries. These are all of such a nature that any one, by the aid of a carpenter, could reproduce them in his own house.

Particular suggestions are offered respecting the mode of administration. In discussing its physiological effects, the author claims "that the electric bath is the only means by which general electrization can be realized," because the current, at one and the same time, impinges directly on every peripheral nerve end and traverses every part of the body.

All other methods affect only a part of the body at one moment, although, during a sitting of half an hour, all nerves are reached.

Among the physiological effects are, *sleepiness* analogous to that following severe exercise; an *increase of pulse beats*, moderate, immediate, and more or less transient; and a slight *rise of temperature*. Immediately there is a feeling of exhilaration and unwonted vigor. Remotely, any derangements of physiological processes are so improved that there is a gradual, but marked, increase in weight. If the appetite has been impaired a series of baths so increase it as to induce positive hunger. Various secretions are, in a less marked degree, changed from a diseased to a healthy activity. There is no pain, even when sixty Hill, or forty-eight Stohrer, cells are used.

Mental buoyancy, and even exhilaration, are among the most common effects of electric baths.

Among the the therapeutic effects are the following: In doubtful cases it aids in diagnosis, owing to the fact that the electric current makes itself more decidedly felt in any part where a morbid condition exists, whether this be inflammatory, neuralgic, rheumatic, traumatic, congestive, or other nature. If this observation be confirmed, it is of the greatest practical moment, because there are some cases of visceral disease that, in certain stages, a diagnosis by ordinary methods is impossible. Again, it equalizes the circulation and, unless the cause of the imperfect blood circulation be irremovable, favorable results may usually be looked for.

As a general counter-irritant it has few superiors. As a general tonic, its effects are often striking and brilliant. Its relative power, its relation to nutrition, and a prophylactic in cases of deranged circulation are all important.

Under the head of "Special Therapeutics," rheumatism—acute, sub-acute and chronic—were treated by electric baths. For obvious reasons, the cases of the last two were most numerous and the results most encouraging. Chorea, hysteria, nervous exhaustion, insomnia, anæmia, paralysis and paresis, neuralgia, articular affusion, impotency, constipation, locomotor ataxia, cachexia, dyspepsia, melancholia and other disorders were; in whole or part, treated by electric baths; with such results as to encourage a further study of this remedial agent.

We think sufficient evidence is here adduced to prove it desirable that these baths should more generally be used by the profession.

The author is deserving of great credit for the honest, efficient work here presented for our common benefit. Failures and successes seem to be fairly given in their appropriate relation. For ourselves, we have no doubt of the substantial correctness of the main views given. The real difficulty in the matter is one of dollars and cents. Time, trouble and professional skill are all profusely required in the successful use of electricity, in any form, as a remedial agent. The electric bath, even more than other forms of electricity, make great demands upon the physician. If one man could get patients sufficient to occupy all his time, he doubtless could afford to give the baths properly, at a rate within the reach of the average patient. Such a number could not be calculated on, and so prices must be so high that only a few can take the baths. Still we shall hope that, in the interests of science, some way may be devised by which the profession can afford to use these baths, as they cannot now afford to use effective galvanic batteries. L. C.

ON THE RECIPROCAL RELATIONS OF AN EFFICIENT PUBLIC HEALTH SERVICE AND THE HIGHEST EDUCATIONAL QUALIFICATIONS OF THE MEDICAL PROFESSION. By Stephen Smith, M. D. Pages, 16. Reprinted from Trans. Amer. Public Health Association. 1876.

This paper is of great interest. The experience of the Roman empire is compared with that of the United States in the single point of its relations to the medical profession. For the first six hundred years of its existence Rome failed to recognize or encourage or support qualified physicians. At last the evils of this system became so terrible that qualified physicians were invited and paid to care for the public and private health of the empire. In the performance of this function they determined the qualifications of those who should practice medicine. As a result the profession was purified and elevated, and in every way the results were gratifying. He compares the first six hundred years of the Roman empire to the first century of the American republic. At the close of this century American law defines a physician as "any one who publicly announces himself to be a practitioner of this art, and undertakes to treat the sick, either for or without reward."

He hopes that in the second century the republic may learn that its true interests lie in the establishment of a well paid medical public health service, and that this service, in addition to its other duties, shall so regulate the practice of medicine that none can enter upon it but competent persons. He sees in the growing interest in public health questions an indication of a good time coming, when all quacks and pretenders shall "hang their harps upon the willows."

Admitting all that the profession has accomplished for good, he thinks that recognition by the state is absolutely essential to any great success. We should be glad if we were able to take so hopeful a view of the case. As a rule thus far, governments have done the American medical profession more harm than good. L. C.

NOTES ON THE BURNING OF THEATRES AND PUBLIC HALLS. Paper. Pages 22. Dr. J. M. Toner, Washington, D. C.

This little pamphlet contains some valuable reflections on the causes of the great mortality occasionally attending such fires, and suggestions for improved security of life. Besides there is a chronological list of theatres and other public places burned. This is a very interesting and timely presentation of facts which should be widely known and thoroughly considered.

ANNUAL REPORTS ON DISEASES OF THE CHEST. Under the direction of Horace Dobell, M. D., by a large number of distinguished assistants.

This book contains three hundred pages, and of its sort is unique. Those having access to all the medical journals in the world will here find nothing new. Still it is convenient to possess a compilation ready made. Others lacking such access to periodicals will find these reports invaluable. The work of selection is performed with care, and the whole is well indexed.

CHEMICAL AND MICROSCOPICAL ANALYSIS OF THE URINE Second Edition. By Dr. Geo. B. Fowler. Cloth; pages 97. 1876. N. Y.: G. P. Putnam's Sons.

In this edition the decimal system of weights and measures has been adopted, also the new chemical nomenclature and notation. The number of books of this scope and on this subject is great. Generally prepared by a teacher in some medical school these are a fair index of the needs of students at said school. The one before us is well adapted for those who expect to get their knowledge of this subject from lectures and books. In short, it is a capital account to read—concise, correct, and modern ; but it is not adapted to work with in a practical laboratory.

The following works have been received and will be noticed in our next issue:

Ziemssen's Cyclopædia, vol. vii; Civil Malpractice, "McClelland;" Transactions of Illinois State Medical Society; Tonic Treatment of Syphilis, "Keyes;" Transactions of New York Pathological Society; Series of American Clinical Lectures for 1876, "Seguin;" Transactions of Wisconsin State Society; Transactions of Medical Society of Virginia.

Meteorological Report of Detroit for February, 1877.

BY C. HENRI LEONARD, M. D., OBSERVER FOR STATE BOARD OF HEALTH.

BAROMETER.—Highest, 30.776; lowest, 29.584; range, 1.192; average, 30.116. We have had the "highest" and the highest "daily average" barometer ever recorded at this station. The "range" has also been the highest, save that of the February of '74; it was then 1.193, instead of the present 1.192.

TEMPERATURE.—Highest, 58; lowest, 16; range, 42; daily average, 33.2. This is the "highest temperatured" February we have had since the Signal Service was established here. The highest February temperature heretofore recorded has been 54 degrees. This was in 1876. The daily mean temperature for '73, was 23°; for '74, 27.5°; for '75, 12.3°; for '76, 28.6°. A daily average of almost 5° higher temperature for '77 than the warmest February heretofore recorded.

WINDS—Prevailing direction, S. W.; greatest velocity, 22 miles per hour (this on the 10th and 18th insts.). Total number of miles traveled, 4,619. This has been, comparatively, a windless month, falling short, from one to two thousand miles, of the usual monthly wind travel. Only one "calm" was recorded this month (that at the morning observation on the 2d). On several observations the speed was but one mile per hour. The day of least "wind travel" was the 9th; but 72 miles was recorded.

CLOUDS—No. of clear days, 7; cloudy, 3; snowy, 3. This has been a remarkable month for the absence of storms. Rain or snow fell on 17 days of '76; on 17 days of '75; on 16 days of '74, and on 7 days of '73. Another remarkable thing is, that on three days—the 13th, 26th and 28th—at no observation were clouds visible. They were absolutely *clear* days. I do not now remember, in the sixteen months that I have been reporting to the Board of Health, that any *one* day has been *entirely* free of clouds at each observation.

RAINFALL.—Greatest daily amount, only .02 of an inch. Total amount of precipitation, only .04 of an inch. This has been the *dryest* February yet recorded at this station. Last February we had *one hundred and thirty-eight times as much;* in February, '75, over *forty-five* times as much; in February, '74, *fifty* times as much; in February, '73, eight times as much.

MOISTURE.—Considerable of an increase over that of last month. The highest noticed was 2 51 grains per cubic foot of air. This was the morning observation of the 1st, and *was not* the day of highest temperature. The 2d of the month had a mean temperature of 7 degrees higher, yet the absolute humidity was considerably less. The days of highest "relative" humidity were the 4th and 5th—it run from 89 to 100 per cent. The absolute humidity on these dates were among the higher ones, yet by no means the highest, again showing that the absolute humidity is not controlled by the amount of relative present. It is the *absolute* that marks the prevalence of children's diseases in summer time. The "relative" humidity, when the "absolute" was greatest, was but 62 per cent. The day of least "absolute" humidity (the 13th) had an average of but about ¾ of a grain to each cubic foot of air; yet the "relative humidity on this date was 65 per cent., but 3 per cent. less than that on the day of *greatest* "absolute" humidity.

OZONE.—Maximum coloration, 1 (this on the P. M. observation of the 24th). On the 2d the same degree was reached, but the paper was exposed for 24 hours.

Altogether, this has been an exceptional month, in almost every meteorological department.

Detroit Medical Journal.

NEW SERIES. VOL. I. } MAY, 1877. No. 5.

Original Communications.

The Relations of Ancient Medicine to Gynæcology.

BY EDWARD W. JENKS, M.D.,

PROFESSOR OF MEDICAL AND SURGICAL DISEASES OF WOMEN AND OBSTETRICS, DETROIT MEDICAL COLLEGE; FELLOW OF THE AMERICAN GYNÆCOLOGICAL SOCIETY, ETC.

A paper read before the Inter-State Medical Convention, held in Toledo, Nov. 28th, 29th, and 30th, 1876.*

In these days, when science, in all its various departments, has many original investigators, and that mighty engine for the diffusion of knowledge—the printing press—serves as the means of bringing within the reach of all who desire the latest views and more recent theories on every subject, we observe that the progress in whatever pertains to the science and art of medicine is in keeping with all other branches of learning. In medicine, the rapid multiplication of books, the demand for new editions of them, occasioned by the avidity with which new theories are, not unfrequently, adopted, and old ones dropped and forgotten, in our haste after new knowledge causes many to ignore the learning of the past.

Many excellent and skillful physicians hold in light esteem the medical scholars and authors of preceding generations, while they present theories and prescribe remedies, as new and original with themselves, that were, perhaps, known and in vogue hundreds of years before. Old editions of the works of those who have added lustre and renown to medicine in the past are, by many, regarded as mere literary curiosities, to be looked at, and not read, and as possessing no intrinsic value in these times of progressive knowledge.

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* This paper by vote of the Society was subsequently read before the Detroit Medical and Library Association.

I do not wish to be understood as entertaining contempt in any degree, for the enthusiastic admirers of the present state of medical knowledge. One who loves the "healing art" cannot but glory in the wonderful achievements and scholarly attainments of the medical men of our own generation. The fair Temple of Medicine was not reared in a day; and, while we add to and embellish and beautify its superstructure, let us not forget the fathers who laid broad and deep the foundation. An esteemed medical friend once remarked that no medical work written previous to Harvey's discovery of the circulation of the blood was of any practical value.

On the other hand, it is stated, upon good authority, that a recently translated papyrus in the Berlin Collection contains a treatise on medicine, transcribed about the nineteenth dynasty, but believed by learned Egyptologists to have been written in the time of the early Mephitic Kings (2600—3500, B. C.) —at least a thousand years before the birth of Moses. Now, a study of those parts of the laws of Moses wherein special allusions are made to the hygienics of women, and precautions advised concerning them, indicates very clearly that the prudent regulations enjoined, and so necessary under the conditions and climate in which the people lived, were founded on observation of the evils arising from neglect. Moses, we are told, was skilled in all the knowledge of the Egyptians; and the rules and observations mentioned were such as would have struck any acute and inquiring stranger, living in a land "where medical precepts had gradually influenced the domestic habits of the *people."

The wonderful precepts of Moses upon matters pertaining

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* Wright on Uterine Disorders, London, 1867.

to hygiene, from whatever source derived, cannot but excite the admiration of physicians; and, without doubt, the well known vitality of the Jewish people, observed in all parts of the habitable globe, is due to the religious observance of Moses' teachings.

Aside from all other conditions in connection with the antiquity of medicine, it seems impossible that it should wholly languish, when we consider that it has been sanctified for all time, as evinced by the inspired writings of Moses and the healing of the sick by Christ and His apostles.

It is but little questioned that the early Greek physicians obtained much of their knowledge of medicine from the Egyptians, of whom Homer speaks as "skilled above all men, and directly descended from Apollo."

The cultured physician of our own day is familiar with ante-Harveian medicine, and would unwillingly part with the knowledge obtained from the early authors.

The physician with the most advanced views in any department of medicine or surgery, cannot fail to find something valuable and suggestive in the works of Hippocrates, Celsus, Aretæus, Aetius, Paulus, and, among later but still ancient authors, as Pare, Morgagni, Mauriceau, Sydenham and others.

We find much that seems to us absurd and amusing in the light of modern medicine; remedies were prescribed because they produced certain effects, as we continue to prescribe them now, notwithstanding our advanced knowledge concerning the physiological action of drugs. How many, who have alternately burned and frozen with fever and ague, have blessed the discoverer of the merits of Jesuit bark, and how many have prescribed it or its active principle, with confident assurance of its affording relief, long before we had occasion to think of what Quinia could or would do to the white blood corpuscles?

We have just reason for expecting that the present generation of patient and scientific workers will greatly add to the store of medical knowledge by their work in the fields of experimental physiology and the physiological action of remedies.

We can not but hail with greatest pleasure any new truth evolved by diligent research; or any new plan of treatment, or any new surgical procedure by which human suffering is assuaged or life prolonged. The history of medicine, from the earliest antiquity, teems with the recorded labors of earnest educated physicians, working for the same ends and purposes as the most brilliant minds and foremost workers in our ranks to-day.

It is impossible for us to tell how much medical knowledge in the past has been gained and then lost amid the various changes of the world's history. It is stated that the great Alexandrian library, in which were many medical treatises, contained 700,000 volumes when it was destroyed A. D. 642; here was substantial loss but in the ages of darkness and superstition which succeeded this period, knowledge was also lost.

After the discovery of printing, in the 15th century, knowledge became more generally diffused.

In perusing many ancient medical works that have been transmitted to us, we find much of no possible value, but we may ask if at present there is not much printed and promulgated that may be classed in the same category, and considerable that, should it survive beyond the present generation, will excite the ridicule and commiseration of future readers. There are in addition some Paracelsian authors and many practitioners in the 19th century whose theories will prove as untenable and absurd as those of the prince of charlatans.

I have already alluded to medicine as a fair temple whose foundations were laid by the fathers; and to continue the figure, we know that in the building of a vast structure, years are sometimes required, and the stones but cumber the ground till the architect puts them in place. A wing is built in one direction, a battlement in another; in one part from bad construction or poor material, decay is manifest before completion; some has to be torn down on account of bad workmanship; the building for a time is neglected, the work of years is lost and the stones again cumber the ground, but the foundation remains imperishable. After a time the architect begins to direct how the disjointed parts are to be put in place and the laborers toil under proper direction, causes the edifice to grow into beautiful and admirable proportions. So the temple at which we figuratively worship has been principally in the hands of master workmen. Bunglers have sometimes marred its beauty and perhaps for a time have built unwisely; a wall has had to be pulled down here and another repaired there; delays have occured and sometimes it has been partially destroyed, but the foundation has remained firm, and has continued to grow more and more perfect in structure. But the time of its completion we know not. We only know that the work of its construction will continue until the time the human race has arrived at that happy period, when there are no more lives to be saved, and there is no more suffering to be relieved. I have heretofore alluded to the science of medicine as a whole desiring to keep prominent this one thought that medical knowledge of the past can not be entirely ignored, and that the present state of medical science has been attained rather by the process of accretion than by any sudden development.

I desire in the remaining portion of this paper to direct your attention to some of the theories and curiosities of ancient Gynæcology.

Gynæcology during the past fifty years, probably more than any department of medicine, has been enriched by investigations, discoveries and improvements. In fact it is quite generally considered that the present state of knowledge of all pertaining to the diseases of women has been wholly developed in the 19th century. It is true that an impulse was given in the early part of this century to the study of diseases of women, by Recamier and his contemporaries which has brought out brilliant results, the like of which cannot be found anywhere in the history of medicine. It is a source of just pride to us that in Gynæcology, America stands pre-eminent, and has contributed so much to elevate it as a science and an art.

In ancient gynæcology we find many strange and curious theories—absurdities mixed with common sense and improbabilities with rational treatment and many suggestive and valuable thoughts. I shall endeavor to place before you a few of these, with which many of my hearers are undoubtedly familiar, without extensive commentation. I do not aim to place them in strict chronological order, but only to present fragments in the history of gynæcology. The history of the ancient Egyptians, long prior to the time of Hippcrates, indicates that there existed among them specialists in the various departments of medicine and surgery, and that there was an advanced knowledge of the diseases of women. Kendrick, on "Ancient Egypt," says: "The fame of its physicians was spread throughout the ancient world. Cambyses sent for an oculist from Egypt, and Darius kept Egyptian physicians around him." "Egypt," says Herodotus, "was full of physicians." They were required to practice according to certain precepts handed down from ancient times in the sacred books. Six of these are enumerated by Alexandrinus. One on the structure of the body, another on its diseases; a third on medical and surgical instruments; a fourth on drugs; a fifth on the eyes, and a sixth on female diseases. This division and arrangement comprehended physiology, pathology, pharmaceutics and surgery, and indicates an advanced state of the science. The different branches of practice were minutely divided, and each practitioner confined himself to one.

Sir Gardner Wilkinson, in his interesting work upon the manners and customs of the ancient Egyptians, like Kendrick, quotes from Herodotus concerning the state of medical science, and writes: "Nothing can more clearly prove their advancement in the study of human diseases than the fact that they assigned to each his own peculiar branch, under the different heads of oculists, dentists, those who cured diseases in the head, those who confined themselves to internal complaints, and those who attended to secret or internal maladies." He also alludes to their dissections, and the now lost art of Egyptian embalmment. "In later ages," says Kendrick, "Egyptian medicine was much contaminated by astrology."

We have, however, no literature fairly attainable upon diseases of women earlier than the works of Hippocrates, or those attributed to him, as it is thought by many commentators that some of the books found in the works of Hippocrates were not written by him. It is evident, however, that they were written in his epoch. Hippocrates lived four and a half centuries before Christ.

The observations contained in his work upon menstruation are certainly ingenious.

"For the cure of sterility, fumigation of the uterus is recommended, and a minute description is given of the mode of performing this process by means of a tube introduced into the os uteri, and connected with a vessel which emits aromatic fumes."

The mechanical treatment of sterility is not wholly a modern invention, as we find this author recommends that, in cases occasioned by shutting up of the os uteri, expansion be effected by means of a wooden or leaden pipe. Directions are also given for applying to the mouth of the womb, after being opened, a cleansing application of cantharides and myrrh.

Abortion is spoken of by this author as attended with more dangers than delivery at full term.

Adams,(1) the learned commentator upon the works of Hippocrates, says of those portions attributed to him on diseases of women, that "there are treatises in the collection more deserving of an attentive perusal. They furnish the most indubitable proofs that the obstetrical art had been cultivated with most extraordinary ability at an early period." Beyond all doubt, the complaints of women and the accidents attending parturition must at that time have come under the jurisdiction of the male practitioners. The most important chapter relating to diseases of women, of the works of Celsus who lived in the first century after Christ is in a great part lost. Celsus was a Roman and did not like the Greeks, nor had he studied at Alexandria, which was for centuries the centre of medical learning, as Athens was of philosophy and Corinth of the arts.

Wright(2) in his chapter upon the "Historical disorders of

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(1) Adams' Com. on Works of Hippocrates, Syd. Soc.—London, 1849.

(2) *Op. Cit.* page 7.

Uterine Pathology," says in reference to Celsus, that even in his time diseases of the genital organs were so far a speciality of the Greek school that he could make it a subject of covert sarcasm. In treating of them he says "their nomenclature among the Greeks is not only tolerated, but now fully sanctioned by practice for they are freely employed in almost every volume, work, or treatise of the physician; but with us Romans these terms are filthy and never employed by any one who has a proper regard for modesty in language, therefore it is evident that there is no small difficulty in maintaining at the same time a delicacy of expression whilst delivering the precepts of the art." "Whether it was jealousy" says Wright "or a continuance of the same bitter feeling towards the Grecian schools of medicine, previously exemplified by Cato and Pliny, it is evident that some other than the alleged motive prompted Celsus to write this sentence; for being a shrewd practitioner he must have known that the morality of the Romans as described in the sixth satire of Juvenal, scarcely required such tender solicitude." Galen and Aretæus probably lived at the same time, for the reason that neither one makes mention of the other. We have reason to believe that they flourished from the middle to the latter part of the secondd century of the Christian era. In Galen occurs the earliest allusion to the vaginal speculum, Aretæus' description of ulcerations of the uterus would indicate that he was equally familiar with the speculum vaginæ. "Both of these authors studied at Alexandria and practised at Rome."

In the latter author we find a chapter on "Hysterical Suffocation" which begins as follows: "In the middle of the flanks of women lies the womb, a female viscus closely resembling an animal; for it is moved of itself hither and thither in the flanks, also upwards in a direct line to below the cartilage of the thorax, and also obliquely to the right and the left to the liver and the spleen; and it is likewise subject to prolapsus downwards, and, in a word, is altogether erratic. It delights, also, in fragrant smells, and advances toward them, and it has an aversion to fetid smells, and flees from them; and on the whole, the womb is like an animal within an animal." In another chapter upon " Affections of the Womb," is the following: " The uterus in woman is beneficial for purgation and parturition, but it is the common source of innumerable and bad diseases, for not only is it subject to ulcers, inflammation, and the fluor, but if the whole organ be suddenly carried upwards it quickly causes death." Notwithstanding the astounding opinions of Aretaeus concerning the uterus, his description of its diseases is indeed excellent, although some of the chapters on treatment are lost.

Aetius, who studied and lived in Alexandria, spent his lifetime condensing and compiling all that was known of medical literature up to the period in which he lived. In the famous library of his city he was unquestionably a faithful and diligent student. It was here that his great work, which is still extant, was prepared about 150 years prior to the destruction of the library by the Saracens. Wright says, " it is without doubt the most valuable existing work on ancient medicine, though but little known." In his 16th book Aetius treats principally of the disorders of women, devoting to the subject one hundred and twelve chapters, varying from a few lines to several pages. Thirty-seven of these chapters treat of pregnancy, parturition, and suckling; there are six chapters on various kinds of ulcerations of the womb; three on abscess, two on displacements, two on obstructed and imperforate anus, seven on growths occurring in the vagina or uterus, and eighteen chapters on menstruation and its disorders. He has special chapters for hysteria, fibrous tumors, pelvic abscess, hæmatoma, displacements, &c., and devotes one very long chapter to inflammation of different parts of the uterus and its treatment.

" So far as concerns the speculum (or dioptra) as a means of diagnosis or treatment it is specially worthy of notice that he mentions it repeatedly. Of the speculum vaginæ we can trace quite a connected history from Aetius down to the present day, although at different times a knowledge of its uses seems to have been lost or forgotten, until its value was again urged upon the profession in the early part of the present century. That specula and other surgical instruments supposed to be of recent invention were in use long anterior to the days of Aetius, we have incontestable proof. In the exhumations of Pompeii, during the second decade of the present century, tri-valve and bi-valve specula, and other gynæcological instruments of excellent workmanship were found, and are still preserved. "In the house of an obstetrix which was excavated was found an instrument of art closely resembling the modern obstetric forceps."* These instruments were probably in common use when the city was buried in the year 79 of the Christian era, or four hundred years before the time of Aetius. Of the speculum and its varieties I shall speak again in connection with various ancient authors. Suppositories, or medicated pessaries, claimed to be of modern invention, were used by Aetius, and in his work are the formulæ for over a hundred varieties. He also mentions sponge tents and describes the mode of introducing them; injections, hip baths, plain and medicated; the value of rectal examinations in retroversion of the uterus, and how it may be restored to its normal position per rectum; to granulations about the os uteri he recommends the application of verdigris. A century after Aetius, flourished Paulus, of Aegineta, whose works have been translated into English by Adams, and published by the Old Sydenham Society. With them many of you are undoubtedly familiar. Paulus does not always conscientiously give credit to authors who preceded him, for there are many things in almost the exact language of Aetius and others; for instance the following in writing of abscess of the womb: "In operating, the woman should be placed in supine posture, her legs drawn up to the belly and her thighs separated from one another, the operator sitting on her right side is to make an examination with a speculum (dioptra) proportioned to her age. The person using the speculum would measure with a probe the depth of the woman's vagina, lest the stalk (fistula) of the speculum being too long it should happen that the uterus should be pressed upon."

The further description would indicate that the disease under consideration is pelvic abscess, for he says "if the abscess be within the mouth of the uterus, we must decline operating." It is somewhat difficult to comprehend the mechanism of Paulus' speculum, but it is thought that the speculum of Albucaris, of the 11th century, was constructed in accordance with the description of Paulus. The figured instruments in Scultetus, however, are described in the language of Paulus at a still later period.

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*Adams on Paulus, page 682.

Of pessaries, Paulus says, that "they are of three kinds, and are applied to the womb; some are emollient, some astringent, and some are anastamative (i. e., they open the mouths of vessels). We use the emollient in inflammation of the womb, and ulcerations and coldness of it, in ascension, eversion and inflation thereof. They are prepared from Tuscan wax, the oil of privet and of lilies, the fat of geese and of fowls, unsalted butter, burnt rosin, stag's marrow, and the like. The anastamative, or those used to open the mouths of vessels, are used when we wish to recall the menstrual purgation that has been stopped, or to correct the state of the womb when it is shut up or contracted. These are prepared from honey, mugwort dittany, the juice of cabbage liquorice, the juice of horehound, new scammony, and the like. The astringents are used in cases the reverse of those for which the anastamative are used, for they restrain the female discharge, contract the womb when it is open, and impel it upwards when it is prolapsed. The pessaries of the ancients were rather for the purpose of medicating than to serve as a support, as at the present time. They were sometimes ointments or liniment applied to the parts upon wool, and most commonly were for the purpose of correcting the menstrual discharge. They were frequently resorted to for the wicked purpose of procuring an abortion. Hippocrates required his pupils to give an oath that they would not give pessaries to women for that purpose.

Among ancient authors sterility was written upon at length.* Hippocrates assigns the following reasons for a woman not conceiving: First, because the os uteri is turned obliquely from the passage to it; second, because the inside of the uterus is too smooth, and will not retain the semen; third, owing to suppression of the menses obstruction takes place about the os uteri; fourth, when menstruation does not take place the veins of the uterus become so gorged with blood that they do not retain the semen, or, on the contrary, the same effect may result from profuse menstruation, whereby the retentive faculty of the vessels is weakened, or a return of the menstrual fluid in too great quantity may wash away the semen; fifth, prolapsus uteri, by rendering the mouth of the womb hard and callous, prevents impregnation. The treatment is given at great length. Aetius, Paulus, and Serapion, an Arabian of the 11th century, regulated their treatment entirely upon the principle of correcting the intemperaments which Serapion considers the most common causes of sterility. "A humid intemperament," he says, "occasions sterility in the same manner that wet ground proves injurious to seed which is sown upon it, and a hot intemperament dries up the semen as the earth scorches the seed during the heat of the dog days."

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*Adams' commentaries, Vol. 1, London, 1844, in Paulus, pages 643 and 644.

"Avicenna, Rhases, Avenzoar, likewise direct their attention to the correction of the intemperaments, but also recommend attention to any other local complaint about the genital organs." Paulus refers to fissures occurring about the mouth of the uterus as the result of difficult labor, and how they are recognized, and the mode of treatment; also to hæmorrhoids and condylomata about the neck of the womb which can be seen by means of the speculum, seized with forceps and cut out; or sometimes they may be cured by the application of dried pomegranate rind with galls or something similar. These growths alluded to are without doubt polypi of the uterus.

There is in Paulus an interesting chapter on difficult labor in which correction of mal-position is described, and embryotomy advised if the child is dead or from any other cause it does not advance; the free use of oils and cerates is also recommended. Aetius treats of the subject more fully. Hippocrates reccommends that where there is inertia, the woman be shaken and also given irritating snuffs, and the nostrils held so that the effort at sneezing may expel the child. When the placentæ are retained, Hippocrates orders that they be extracted slowly and for this purpose directs that the women be placed upon a stool and the child be allowed to hang down without the umbilical cord having been cut so that the weight of the child may produce separation; and lest its weight should occasion too strong pulling, he advises it to be placed on wool or bladders filled with water which being perforated with small aperatures, the child shall sink down gradually and draw away the placenta.

Celsus gives better advice. He directs us to stretch the cord gently with the left hand and introduce the right, separate the placenta from the uterus and remove all retained coagula. Adams the translator and commentator of Paulus writes as follows: "Serapion treats this subject in nearly the same terms as our author. Like the Greeks he approves of the use of emollient oils and baths, to produce relaxation. The same practice is advised by Rhases. When the membranes are tough he advises us to tear them with the fingers, or open them with a knife. Avicenna treats of difficult parturition with his usual accuracy which exhausts every subject he handles. He states that the expulsion of the child is performed by the abdominal muscles. This was the opinion of Galen. He approves greatly of the bath, both before labor has come on and during its progress. When delivery is difficult owing to the size of the child he directs us to apply a fillet around the child's head and endeavor to extract it. When this does not succeed the forceps are to be applied, and the child is extracted by them. If this can not be accomplished the child is extracted by incision, as in the case of a dead fœtus.

This passage puts it beyond a doubt that the Arabians were acquainted with the method of delivering the child alive with the forceps. It would seem that the early Greeks and Romans, at least so far as their writings are concerned, were unacquainted with their use, although the instruments were found as before stated in the ruins of Pompeii. The obstetric forceps may have been, in those early days, kept secret as they were so recently for many years by the Chambelain family. Of the vaginal speculum for diagnosis and treatment of women's diseases, we have a much more perfect history. It was known before Aetius, and described by him showing the testimony of acknowledged authorities in its favor. Still their teachings were disregarded for upwards of a thousand years, while we have every reason to believe there were women suffering from diseases peculiar to their sex, and as greatly requiring help in those days as much as now. This loss of acquired knowledge in the diseases of women of which the speculum formed a part, calls forth from Wright to whom I have before alluded the following interesting resume. After speaking of the disregard of the teachings of Aetius and those whom he quotes for more than a thousand years, he says: "It forms a somewhat curious and significant episode in professional history. After the dispersion of the Alexandrian school, the professors, though scattered, were still received with honor by their Moslem captors. What they could teach was eagerly gathered except when their instruction clashed with any tenet of the Mohammedan creed. The Arabian schools which then arose comprised, equally industrious, and equally acurate observers. But the study of the diseases of women was not cultivated among them, for there was an insuparable bar to the attainment of practical experience on the subject. It was against the Mohommedan creed, that women, even in their suffering, should undergo personal examination, except by one of their own sex. Their degraded social position prevented their attaining any such position as that to which the women of Greece had vindicated their claims. Even an Hypatia or Agnodice, could not have withstood the blighting influences of Moslem sensuality." In the Arabian writings there is only a very general mention made of the diseases of women, while the local treatment was left in the hands of the midwives.

It is true that Albucasis, one of the latest writers of the school refers at greater length to those diseases, but he appears by his writings to have been a Jew. It is he who first mentions herpes of the uterus and the use of an air pessary for the vagina. Then, as to this day in the East, the midwives undertook the work. One of them, Trotula, in the 13th century, published a treatise on uterine disorders in which she expressly mentions that many Saracenic women practiced at Salerno. It would seem that the Arabian writers directed how the work was to be done by the midwives, rather than by male physicians.

Jacobus Rueffus in 1587 published his work "De Conceptu et Generationae Hominis," etc; in which is a drawing of a speculum which he calls the speculum matricis, and which he describes as useful in difficult parturition to dilate the uterus and aid in the delivery of the child; also an apertorium for a similar purpose and the first engraving of which I have any knowledge of a *smooth* bladed obstetric forceps. Here it may be well to notice that although the Arabians as mentioned by Avicenna, were, as I before stated, familiar with obstetric forceps for the delivery of children alive, yet Albucasis who writes at great length upon diseases of women, and has drawings of the instruments used and recommended by him, shows no indication that he was familiar with the forceps alluded to by his predecessors, for all of his have teeth and are manifestly either for destroying the child or delivering it without regard to life. Ambrose Pare', in the 16th century, who did so much for surgery, and obstetrics made use of the speculum as did Guillemeau his pupil and successor at the French court. We find the speculum figured in Scultetus (or John Schultz,) 1666, patterned after the description of Paulus Ægineta, as the language of Scultetus accompanying the engravings is the exact language of Paulus. In Scultetus are represented many other uterine instruments, among which is a very good delineation of the modern hysterotome called by the author *scalpellus deceptorious.*

About the time of the publication of some of the works latterly mentioned, the world began to emerge from the darkness under which it had so long been clouded by reason of ignorance, superstition, sensuality and general misrule. There was a revival of learning to which the invention of printing in the 15th century had given an immense impetus. In connection with the revival of general learning, medicine bore its share. Surgeons began to rank higher than barbers, while the practice of obstetrics and diseases of women was intrusted more to skilled and educated men than to ignorant and gossipy midwives. European literature began to be more abundant, new works upon medicine were written while many writings by ancient physicians were printed with commentaries. Among the many medical works printed were numerous treatises on diseases of women. Wolphius in 1586 edited a work composed of all important former treatises upon diseases of women, in three volumes.

There seemed to be an increasing demand for this kind of medical literature, and in 1597 Spachius brought out a similar work to that of Wolphius, with additional matter in a folio (which I here show you).

We find in much of this literature the speculum and local treatment made mention of, and indications that the diseases of women were better understood than at a later period; for there seems, after this time, to have been a long time when the labors of former years by distinguished men were either lost or neglected in this department of medicine, until Recamier and his contemporaries gave a fresh impulse to the study of gynæcology. We find, however, in the writings of the early European physicians, a certain amount of confusion from want of pathological knowledge; for how could it be otherwise, when physiology was so little understood?

Astrology and alchemy were mixed up with medicine; the first principles of physiology were ignored when men were searching after the "philosopher's stone" and the "elixir of life." In surgical gynæcology, we find but little in ancient medicine foreshadowing the brilliant exploits of the nineteenth century. Clitorodectomy was practiced by Paulus and Albucasis, while Avicenna recommends us to remove the enlarged nympha or clitoris, either with medicine or knife.

Rhases, treating of diseases of the uterus, says: "If there be a red piece of flesh in the mouth of the womb, if situated in the anterior part, and if it be round or long, and not attended with pain, some surgeons cut it off, but I prefer tying it." This description seems to apply to polypus of the womb.

Pare treated many of these diseases of the womb by fumigation. There is figured in his works a lamp and tube for this purpose.

The actual cautery was one of the most important of the surgical instruments. Not until Pare used the ligature upon severed arteries was there any better mode than the cautery of arresting hemorrhage. The breast used to be amputated by transfixing it with two ligatures at right angles, and then cutting off the entire mass beneath them, and afterwards searing with a hot iron. Pare was the first to mention an operation for lacerated perineum, but gives no description of his mode of doing it.

Guillemeau is supposed to be the first to record the various steps of this operation, and reports a successful case, which I will not translate at length, but simply give a synopsis, as related by him: The recto-vaginal septum was torn through. He waited until six weeks after delivery, when, with a sharp curved bistoury, he cut one side through the cicatrix and skin and then the other side. He then transfixed the two parts through the recto-vaginal septum with a long needle, and wound the ends with silk in a figure of eight, as in his operations for hare-lip, and then put in superficial sutures. He states that the case was cured in five days. This was really an ingenious operation, and attended with excellent success.

In the works of Maurriceau are the indications of great experience, without much system or order; but in the truly celebrated work of Morgagni on "The Seats and Causes of Disease Investigated by Anatomy," is very much of interest to the student of gynæcology. I cannot forbear mentioning one author of comparatively recent date, who flourished a few years before Recamier, whose works seem to have passed into obloquy, but most undeservedly so. I refer to Vigarous, of Montpelier, France, whose "Maladies des Femmes," in two vols., Paris, 1801, is an analytical and classical work far in advance of his time. This author mentions electricity as one of the modes of treating sterility, a remedy of questionable virtue, yet claimed by some to be a discovery of our own day. The peculiarities of his treatment, and some of the ludicrous things he relates, I will not trouble you with.

Vigarous was familiar with the speculum; for he says, writing of certain uterine disorders: "When we open the vulva of a woman with the *speculum* (italicized), we easily perceive with the eye around the orifice of the matrix, etc."*

If it were not for wearying your patience, I should much like to quote some of the interesting and instructive things mentioned by the last named authors, as well as many others to whom I have not alluded.

In looking over the literature of the past upon diseases of women, we perceive the fault of the earliest writers, who were familiar with the treatment of uterine diseases, to be, that they neglected constitutional treatment. Later, local treatment was wholly neglected, and even forgotten. In the 19th century, even, we have had distinguished names arrayed as partisans of one mode, to the exclusion of the other; but, happily, knowledge has increased, and the successful gynæcologist of to day is required to be an accomplished physician, as well as a skillful surgeon. To be all this implies a broad and comprehensive knowledge of the pathogenesis and phenomena of disease, and a dexterity of hand which enables him to aid in repairing its ravages.

I have, in this fragmentary and imperfectly prepared paper, aimed to call your attention to the amount of knowledge in the past concerning diseases of women, rather than to the lack of it. The many crudities and absurdities intermingled with learning and wisdom I have purposely excluded. History repeats itself in medicine, as elsewhere; for not unfrequently we may perceive that many new discoveries and inventions have previously been in part, if not wholly, known and then lost many years before. And what is true of gynæcology in ancient times is no less true of medicine as a whole. It is almost impossible, in our investigations of the state of medical science at different times in the past, to be so interested in one department of medicine as not to feel an equal interest in all other departments, and those whose labors have rendered their names famous.

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*Dionis, in his "Traite des Accouchments," Paris, 1718, speaks of the speculum matricis, or mirror of the uterus, in similar language, thus showing that this instrument was better known among the French than English physicians of that period.

Dr. Adams, in his preface to Paulus Ægineta, writes: "It seems to me that, at certain periods of ancient times, the standard of professional excellence was such as would not easily be attained at the present day, with all our vaunted improvements in knowledge, and that many of those early masters of our art were distinguished for varied stores of erudition, an ardent love of truth and an aptitude to detect the fallacies of error such as few of us, even now, can lay claim to." Hippocrates held that, to become an eminent physician, it was necessary not only to be well acquainted with the structure of the human frame, but, also, skilled in logic, astronomy and other sciences. Galen was, without doubt, the very "beau ideal" of an accomplished physician, skilled in *all* the sciences of the day. Celsus was not only well acquainted with medical literature, but was "minutely skilled in every elegant and useful science which was known and cultivated at that remarkable period."

Rhases, the Arabian, requires of him who aspires to eminence in the medical profession, that "instead of wasting his earlier years in frequenting musical and dancing parties, he would have spent them in conning over the valuable records of ancient wisdom." "But the sciolist" says he, "who gives himself out, as a proficient in the art while he has scarcely a smattering of learning, will never be deserving of much confidence, or even attain any great eminence in his profession. For it can never be that any individual, to whatever age he may reach, should be able to comprehend in his mind a subject so vast and diffuse except by treading upon the footsteps of the ancients. Since the science far exceeds the narrow limits of the life of man, as is the case with most of the liberal arts as well as with medicine, let us suppose that in the course of a thousand years, a thousand authors had made improvements in the profession, and then a person who has diligently studied these works may improve his mind as much in knowledge as if he had devoted a thousand years to the study of medicine. But when an acquaintance with former authors is despised, what need be expected from the efforts of a single person? For however much he may surpass others in abilities, how is it to be supposed that his private stock of knowledge should be at all worthy to compare with the accumulated treasures of antiquity?"

This recorded opinion of one of our distinguished predecessors, although written in the 11th century, is in language not wholly inapplicable to the 19th. But I must desist as I am aware there is a limit to the patience of even a learned body of physicians like this, if there is none to the exercise of my pen. My paper has already occupied more of your time than I at first designed, and in conclusion I will only add: the more I have searched into the history of medicine, and read the records of past centuries, the more has my veneration and admiration increased for those who have heretofore labored to give renown, and lasting glory to the vocation which we represent. If in the minds of some present, who have given but little thought to the work accomplished by the fathers of medicine, I succeed in exciting similar feelings to my own, then my labor of love will not have been in vain.*

Cases in Practice.

BY DR. O. W. TOCK, GAINES, MICH.

I am persuaded that it will not be out of place to mention a few cases, in my practice, where bleeding seemed indicated, in order to invite criticism or encourage the use of a remedy, than which we have none more powerful for good, under cer-

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*Note.—After the reading of the paper was concluded, the author exhibited some of the ancient works from his own collection, which had been alluded to, and some drawings of Gynæcological instruments, (the specula in bronze) found in Herculaneum and Pompeii. Among these books were the following: *Spachius*, Gynæciorum Argentinæ, 1597, (this work comprises the writings upon diseases of women of Hippocrates, Felix Plater, Moschion, Cleopatra, Trotula, Jac. Sylvius, Rueffus, Mercurialis, Albucasis, Pare, Akakia, Mercatus, and others). *Ætius*, Basle 1567. *Rueffus*, De Conceptu et Generatione, Frankort on the Main, 1597. *Scultetus*, Armamentarium Chiurgicum, Frankfort, 1666. *Astruc*, Traite Mal. des fem., Paris, 1785. *Garengeot*, Traite de Instruments de Chiurgie le plus utile, Paris, 1723. *Dionis*, Traite des Accouch. Paris, 1718, and several volumes pertaining to diseases of women in the early part of the last century.

tain conditions, in our system of therapeutics. Though not an especial advocate of the lancet, I have always considered a discriminate use of it legitimate, and look upon the practitioner who ignores it, in the light in which it is held by the well-balanced and sturdy pioneers of our profession, to go to the bed-side of his patient, not armed and equipped as an intelligent and conscientious physician should be, having left behind one of the remedies *par excellence.*

I shall mention only a few isolated cases, where the remedy, as applied, seemed to attest its superiority over all others of its class.

The first case was that of a primipara Miss F. J.; was called April 15, 1875 to attend her during confinement. There were no untoward symptoms during her labor, save a peculiar disquietude of mind, because of her unhappy condition, and the attending odium; she being bereft of parents and that sympathy of friends so necessary at such times. The birth of the child and immediate delivery of placenta was not followed by any appreciable quantity of blood, scarcely soiling the clothes under her; what bearing this had upon the subsequent convulsions, unless it caused greater determination of blood to the brain, I shall not attempt to answer. While endeavoring to dispel her gloom, by words of cheer, to which she seemed listening attentively, she sank under the power of a terrible convulsion. I immediately gave Bromide Potash grs. xxxv and Chloral Hydratė grs. xxx; another convulsion soon followed, and gave way only to be followed by others of equal severity; and feeling that the sedatives employed were in full force, and doing no good, administered Bromide Potash, grs. xl. and Sulph. Morphia, grs. j. The convulsions increased, and with more terrible severity, if possible, and after waiting another hour and a half, resolved to bleed. She being of a strong robust habit, I did not hesitate to bleed freely, and drew from her arm fifty ounces of blood. This was directly followed by two equally severe convulsions, and which were the last of any special significance, although symptoms would manifest themselves for hours, but were easily controlled by a few inhalations of chloroform. She convalesced

for a large family. Described her headache as increasing in severity, and now of such nature as to almost produce spasms. I advised bleeding, and took eighteen ounces of blood. Her trouble ceased from that time, and she continued in perfect health to full gestation. What other therapeutic means would have accomplished so much, in so short a time, and so easily?

Case 5th. Was summoned September 3d, 1875, to see M. G., an Irishman, aged 60. Found him sitting upright in bed, a position he had been obliged to take, on account of dyspnœa and pain, almost from the date of his sickness, forty-eight hours previous. Upon examination, found the left lung almost entirely involved in an active inflammation. Pulse 120. Temperature 104, and the characteristic pneumonic sputa. The question was, how shall I relieve this man of his extreme discomfort quickest. The objects to be attained were, to lessen the quantity of blood, lower its stimulant effect and relieve nervous irritation, the last being paramount, for there was evident great nervous exaltation. I concluded to bleed, and opened a vein, allowing it to run, watching the effect rather than the quantity, until he began to breathe decidedly easier, and expressed a wish to lie down, as he was feeling faint. I had taken twenty ounces of blood, not a large quantity for a a man of his well balanced constitution. The effect was all that could be desired and more than I expected, for he was wholly relieved of pain and distress and could lie down with ease. On the fifth day from my first visit he was pronounced convalescent. I am aware that with opium, quinia and veratrum viride or aconite, I could have accomplished nearly the same, if not quite, but I could not have done it so decidedly and quickly, and should always *bleed* under the same conditions. I would rather face a little unwarranted opposition, and come off victorious, than pander to the views generally entertained and taught of that *theoretical* profession that has attained to such mushroom growth—Homœopathy.

Case 6th. Miss P. F., aged 20. Decidedly nervous temperament. This lady was visiting at the house of a friend, and in great alarm, I was summoned to see her. Found her suffering from active cerebral congestion, neuralgic in type. The pain was so intense as to alarm her friends very much, while she despaired of her life. She had taken a long walk in deep snow, while thinly dressed and was benumbed with cold. her limbs, in particular being very cold. I thought to bleed her, but having left my lancet, and feeling that something was expected of me decidedly soon, gave her a hypodermic injection of morphia, gr. 1-5, not altogether an experiment with me, though antagonistic to established physiological principles, opium being classed with the cerebral stimulants. The headache and pain began to subside in the course of fifteen minutes, and in little more than half an hour left her resting comfortably, though not sleeping. Since then the same lady has had an attack very similar, and brought about by the same agencies, and relieved by the same means, although the usual remedies for active congestion were given largely, without effect. This patient was very averse to bleeding, being in somewhat delicate health. Could I have accomplished as much by bleeding? It may be claimed that this was a case purely neuralgic in character, without active cerebral congestion accompanying it. But the symptoms warranted the conclusion I have advanced. The indications calling for opinion in this case, I regarded rather than the general objections prevailing against its use in brain congestion. The theories upon which we base our conclusions, as a rule, as to the prescribed use of remedies to meet only *certain* conditions, is not altogether the true position. Medicines that have hitherto been regarded as stimulants are now known to possess remarkable sedative powers, and the converse, etc. These observations would seem to teach us that rational empiricism can still clasp hands with exact science in the practice of medicine and not fall by the way-side oftener.

Preventive Treatment of Congenital Syphilis.

READ BEFORE THE GRAND RAPIDS MEDICAL AND SURGICAL SOCIETY.
BY G. K. JOHNSON, M. D., OF GRAND RAPIDS.

Two cases have been under my supervision which I report because they have a bearing on the subject indicated by the heading of this paper.

Case 1. A gentleman and his wife consulted me on account of constitutional syphilis. In the husband the symptoms were well marked, and consisted of the characteristic cutaneous affection and ulceration of the fauces. He had had chancre three or four months previously, which had healed at the end of three or four weeks. The wife had similar but less severe symptoms; but she was unmistakably syphilitic.

Having recently become pregnant, she was greatly disturbed lest her offspring should be involved in her misfortune. She was aware of the nature of her ailment, and of the consequent danger to the child; and she begged me to do whatever could be done to ward off that danger.

She was put, accordingly, on a mild mercurial course. Two grains of blue mass were directed to be taken three times a day; but the patient was instructed that should looseness of the bowels or signs of ptyalism supervene, the remedy should be suspended for a few days. This treatment was continued, with but slight interruption, for about five weeks. At the end of this time the symptoms had nearly vanished. Then, in the hope of giving immunity to the fœtus, the patient was directed to take eight grains of iodide of potassium, with one-thirtieth of a grain of bichloride of mercury three times a day. These salts were given with aromatics and bitter tonics, with a view to counteract their tendency to impair digestion.

This medication was continued with occasional intervals of a few days, until about the end of the eighth month of gestation. It thus extended over a period of more than six weeks. During all this time the woman's general health was good. She went to term, and gave birth to a healthy child. That child is now eight months old, and is apparently entirely healthy. No syphilitic symptom has ever been developed.

Case 2. Mrs. ———, 30 years of age, apparently healthy. Her first pregnancy, several years ago, terminated in miscarriage, on account of disease of the fœtus. Her second pregnancy proceeded to term, and resulted in the birth of a child, which appeared at birth to be healthy. But at the end of three or four weeks it ceased to thrive. Brownish discolorations soon covered the surface. The child became fretful; nutrition was impaired; signs of lesion of the meninges of the brain came on, and the child died in a coma when four months old. Congenital syphilis was clearly the cause of death.

In due time a third pregnancy ensued and proceeded to term. A child was born which, at birth, gave no indication of disease. For three weeks this child. also, did well; and but for past experience, there would have been no cloud in its prospects. But at the end of that time, namely, when the child was between three and four weeks old, signs of vitiation appeared; and soon copper colored patches mottled the skin, and a few spots of pemphigus were seen. The child's general condition declined, and at last it became lethargic and then comatose. It died when fourteen weeks old.

Inherited syphilis was again clearly the cause of death. The mental distress of this mother was now very great. A mysterious fatality had robbed her of all her children, one after another.

At length a fourth pregnancy took place, and the mother insisted that something be done to save the child, if possible, from the fate of its predecessors. She was, therefore, put under treatment similar to that employed in the first case. She was required to take eight grains of iodide of potassium, with 1-32 of a grain of the bichloride of Mercury, three times a day, in combination with Huxham's Tinc. of Bark. This prescription was employed from about the seventh week of gestation until the end of the eighth month, with occasional intervals of five or six days. The general health of the woman suffered no impairment from this protracted use of the remedies; on the contrary, it was firm and good throughout. This was, I think, in part due to the conjoint use of the bark, which served to counteract the depressing effect of the salts. A healthy child was born at full time.

This child is now seven months old, and is healthy. Not the least sign of a syphilitic cachexia has appeared.

In this case, the father is known to have had constitutional syphilis. It is not certainly known that the mother had been infected, but there is reason to think she had been. However this may be, experience had shown that, without preventive medication, these parents could not hope for healthy offspring.

In the first case, there had been no previous children; but we have a right to infer that, but for the treatment, the child would have been syphilitic.

It seems to be established that the embryo may take a syphilitic dyscrasia, at the moment of conception, from the spermatozoid of one parent, or the ovule of the other; or from both concurrently. When one parent only is affected, the offspring may escape, though the chances are always greatly against it; but when both are syphilitic, the child seldom or never escapes, unless shielded by medication.

These cases show, as far as two cases can show, the advantage to the child of such medication, addressed to the mother during gestation; and they teach the practical lesson that, under such circumstances, we ought diligently to use remedies, in the hope that we may thereby save the child from a deadly inheritance.

Original Translations.

From the German and French, for the "Detroit Medical Journal."

BY J. HENRY CARSTENS, M. D.

Experiments to prove Mercury in the Milk of Women during a Course of Inunction, by Dr. Klink of Warsaw. (*Viert. Jahr. Dermat. & Syphilis.*)

Dr. Klink described a case of syphilis in a nursing mother, whose child also had the disease. Excepting baths containing each 5 grains of corrosive sublimate, it was cured by the mercury obtained from the milk of the mother, who was subjected to a course of inunction.

The possibility of mercury passing from the mother, with the milk, to a child has been denied by Henry J. Chevallier Peligot, Posner, and others, but other authors (C. Gerhardt, Persome, C. Binz, etc.,) have proved the presence of mercury in the milk of wet nurses. Klink making his experiments in Tadakowski's laboratory, was able by electrolysis, to deposit the mercury on plates of gold. The mercury was afterwards proved to have been iodide of mercury. He has therefore proved what has been only heretofore *suspected* by other therapeutists, who judged by the results of the treatment. (*Vienna Med.-chirg Rundschau.*)

Experimental Addition to our Knowledge of Fevers, by H. Jacobson. (*Allg. Med. Centr. Zeit.* 27.)

Continuing the experiments of Cl. Bernard the author gives the results of thermo-electrical measurements which were made at his suggestion by Messrs. Schnelein and L. Jacobson, to determine changes of temperature of the skin in different fevers. These the experiments prove that in certain forms of fevers—typhoid, peritonitis, acute rheumatism, erysipelas, puerperal metritis, miliary tubercle, cheesy pneumonia—oscillation of temperature takes place continually in the skin, in the course of the disease as well as at the height of fever and temperature; and that these changes are not proportional to the temperature of the axilla or oral cavity, or in any manner depending thereon. In constant or increasing temperature of the axilla, sudden changes in the temperature of the skin are not unusual. Differences of 8°–10° C. have often been noted, without any symptoms of lessened heart's action. But also on different parts of the skin, even adjoining parts, as thorax and epigastrium, no harmony could be found, while the temperature increased in one place, it lessened perceptibly in another.

In a minority of febrile diseases, scarlatina, measles and croupous pneumonia, the difference of central and peripheral temperature disappears. Jacobson concludes that the nerves supplying the bloodvessels of the skin during a fever do not cease their functions. It appears also necessary in future not to take the temperature of the axilla and oral cavity alone in the measurement of the body's temperature.—*Vienna Med.-chirg. Rundschau.*

Societe de Biologie a Paris.

M. Davaine presented an anatomical specimen, of extra uterine pregnancy with the membranes intact; it was a case of tubal pregnancy. It came from a woman who had died with symptoms of internal hemorrhage, one and a-half hour after entering the Charity hospital during the service of M. Labaulbene. All that was known of her antecedents, was that she had been hysterical.

At the autopsy the peritoneal cavity was found filled with blood, and, at the end and along the Fallopian tube, an oval tumour the size of a chicken egg, the consistency of a cyst and of the color of wine. This tumour had at one end a small orifice, at which a small piece of coagulated blood was adherent. The corresponding ovary showed a large corpus luteum. On the right ovary a yellow pocket was also found but less voluminous. The other organs were normal.—(*Annales de Gynecologie.*

Epithelioma of the Neck of the Uterus Cured by Five Injections of a Solution of Chloride of Zinc, by Prof. A. Guichard. (Condensed by the Translator.)

When an epithelioma of the neck of the uterus is *confined* to that locality, two methods of cure can be employed—amputation and cauterization. The author presented a case in his clinic at the Ecole de Medecine, a woman aged 38 with the following history: She menstruated at 15 years, had two children when respectively 22 and 25 years of age; both now dead; family history good. Present disease began nine months ago, general malaise, etc. 3 months ago began to flow at irregular intervals. Speculum neck,examination revealed an epithelioma confined to the posterior dimensions, 5 by 4 centimetre. The tumor bled at the slightest touch. Nov. 30, assisted by Dr. Guichard, Pere and Briand, the professor injection with a hypodermic syringe, armed with a long nozzle, 4 drops (or 20 centigrammes) of a solution of chloride of zinc. A tampon was introduced, which was removed the second day and emollient injections made. Dec. 4th, tumour looked shriveled. At three points 5 drops of chloride of zinc were injected. An eschar came away Dec. 6th. As she expected to menstruate by the 11th, no further injections were made. Menstruation lasted from Dec. 12th to 15th. Dec. 18th examination revealed many points that had an appearance of vegetation. At three different points again 5 drops were injected. Dec. 24th and 28th the last injections were made at two points. After this repeated applications of the solution were made. Two years thereafter, Jan. 1877, she was examined and found to be well, no return of the disease having taken place.—(*Annales de Gynecologie.*)

Reports of Societies.

Abstract of Proceedings at the Annual Meeting of the Michigan State Board of Health, April 10, 1877.

REPORTED BY DR. H. B. BAKER, SECRETARY OF BOARD.

The annual meeting of the State Board of Health was held in Lansing, April 10, 1877.

There were present Drs. Hitchcock, Kedzie, Lyster, and Baker, and Rev. Chas. H. Brigham. The terms of the other two members—Rev. J. S. Goodman and Dr. A. Hazlewood—expired on January 31, and new appointments have not yet been made.

Dr. H. O. Hitchcock, President, presented his annual address on "The Laws of Heredity in their Relation to Public Health," and to legislation in the interests of Public Health. It will appear in the next report of the Board.

The election of President for the ensuing two years resulted in the unanimous choice of Dr. O. H. Hitchcock. Dr. Hitchcock returned his sincere thanks for the honor thus conferred upon him, but stated that having held the office since the organization of the Board, and believing that the honor should be shared by others equally desiring of it, and whose earnest efforts should be rewarded, he should therefore peremptorily decline. Dr. R. C. Kedzie was then elected president.

Dr. Arthur Hazlewood submitted a short report concerning a suggestion by Dr. W. H. Rouse of Detroit, that the State Board of Health and the State Agricultural College co-operate in the production of Bovine virus. Dr. Hazlewood reported that a reliable article can now be obtained, at a less cost than by the proposed method, from persons who make a specialty of its production. He suggested that the Board could with propriety refer all inquiries for reliable Bovine virus to Dr. E. L. Griffin of Fond du Lac, Wisconsin, or to Dr. Geo. E. Ranney of Lansing, his agent for Michigan. The report was accepted and adopted.

The Rev. C. H. Brigham read an essay on "Recreations in their Influence on Health." He reviewed the popular games and exercises of the day, and said "that the best recreation is that which gives the most exhilaration of mind and body, with the greatest economy of time and strength, and with the least danger to life and limb.

Dr. Baker submitted a proposed circular of information on the "Restriction and prevention of Scarlet Fever." It embodied carefully framed rules for the prevention of this dreaded disease, and directions for different methods of disinfection, etc. The subject has been under consideration during the past year by members of the Board, particularly by Drs. Hazlewood and Baker. The document was adopted and 20,000 copies were ordered printed in pamphlet form, for distribution in this State. A circular to the correspondents of the Board asking for facts concerning scarlet fever was ordered printed.

The Secretary read a report from Dr. J. H Beech of Coldwater, who at the request of the Board had made an investigation of cases of diphtheria at Union City. The number of interments from this disease in the cemetery of that village between April 27 and October 31, 1876, was 20. The report was ordered published in the Annual Report of the Board.

At the last meeting of the Board Drs. Kedzie and Baker were appointed a committee to take such steps as circumstances might require to place before the Legislature any information in the possession of the Board regarding the working of the law for the inspection of illuminating oils, and to act for the Board in endeavoring to maintain the present standard of inspection so far as regards the flash test—140° Fahrenheit. Dr. Kedzie reported that he had labored hard in the performance of the above duty, had delivered an address upon the subject before the Legislature, and had several times met with the committees on public health in the Senate and House, but in the Committee of the Whole in the House the test had been lowered to 120° F. The subject was discussed and there was a unanimous feeling that in the interest of public safety the present flash test of 140° F. should be maintained. The Secretary was directed to send a respectful memorial to the Legislature, setting forth the views of the Board.

The Secretary submitted his quarterly report, which mentioned the distribution of meteorological instruments to observers in different parts of the State; books to the number of 123 had been received and placed in the library; diphtheria has been reported by a large number of correspondents in different parts of the State; 36 letters had been written to correspondents asking for details, and 28 replies received; letters had been written to and replies received from correspondents who reported erysipelas and puerperal fever at the same time and place. Letters had been written to and valuable replies received from correspondents where scarlet fever had prevailed. About 1,600 copies of the last Annual Report had been distributed during the quarter, and the usual number of former reports and documents had been applied for and distributed. Among these applications were many from other states and some from foreign countries. Thirty-three replies have been received from correspondents relating to diseases in the State during 1876; 13 replies relating to water supply in various localities; 345 reports of local Boards of Health had been received, and the question was raised whether more vigorous action should not be taken to obtain more of these reports. About 70 reports of prevalent diseases are received each week from correspondents in different parts of the State. These reports are carefully read as received, and have been compiled for the months of October and November. Circulars have been issued to health officers of cities urging them to report in accordance with law. The following cities are delinquent: Adrian, Ann Arbor, Battle Creek, Bay City, Big Rapids, Coldwater, Corunna, Detroit, East Saginaw, Flint, Hillsdale, Holland, Jackson, Lansing, Marshall, Muskegon, Pontiac, St. Clair, Ishpeming, Mason and Negaunee. A few of the health officers of these cities have reported spasmodically. The Secretary was directed to condense from publication in the Annual Report the replies of correspondents relative to diphtheria. and to scarlet fever. A communication from J. S. Caulkins, M. D., relative to a kerosene lamp explosion by which Estella Slack was killed; also a communication from Dr. A. W. Nicholson, relative to an epidemic of scarlet fever, was read. The letter will be published in the Annual Report. A communication from Wm. G. Rhoades, relative to the ventilation and trapping of house drains, was read and referred to Dr. Lyster. Other communications were read, and the usual regular business was transacted.

Dr. Kedzie was requested to prepare an article on water examination. Dr. Baker, who made the motion, thought such a paper would enable the physicians throughout the State to make examination and give useful information as to the safety in the use of water from wells, etc.; that it would secure a greater number of examinations, and the conditions of the water supply and the diseases in different parts of the State could be compared.

A hearty vote of thanks was given to Dr. Hitchcock—retiring President of the Board — for his earnest and able labor for the promotion of public health.

Detroit Academy of Medicine.

DETROIT, January 9th, 1877.

Dr. Gilbert was elected president, pro tem.

PREVAILING DISEASES.

Dr. Spalding had met with a very persisting form of intermittent fever, and which did not yield to quinine as readily as ague does in the spring and fall of the year.

Dr. Gilbert.—"What, if any, were the complications?"

Dr. S.—It followed inflammation of the womb in two cases, but most of the cases were in children, and of the regular intermittent type.

Dr. S. raised the question "if it were possible for the ague poison to be stored up in the system."

Dr. Noyes thought it remarkable that we should have malarial fever during the prevalence of such cold weather.

Dr. Gilbert had seen several cases of same class, though the most of them had abdominal complications, pain, griping, tenderness, &c. Last year, during the winter, malarial fevers that came under his observation were complicated with cerebral troubles. In answer to Dr. Noyes' query he did not think the poison was generated during very cold weather. He spoke of a case that he was treating, and said the same thing had occurred to his mind that Dr. Spalding had suggested, i. e., whether this patient had not been laying up a store of the poison ever since last summer The Dr. said that we could not demonstrate it, but that there was nothing improbable in the case.

Dr. Noyes had seen one or two mild cases of diphtheria, and a few cases of lung fever in children.

Dr. Gilbert asked Dr. N. if he had adopted any particular treatment.

Dr. N. answered that he had not.

Dr. Connor.—"Why is it that diseases of blood poisoning, generally speaking, are more prevalent during the winter season?"

Dr. Spalding.—One reason that occurs to me is, that the eliminating organs are more active in summer than in winter, and that they undertake to eliminate poisons as well as effete matter.

Dr. Gilbert.—It is a well known fact that vaccine virus is destroyed at a temperature of 80°; reasoning from analogy the small-pox poison would be destroyed in summer; in winter the sub-stratum of air is heavy, and poisonous agents are not diffused as rapidly, hence they are more concentrated. People are more confined to their houses in winter, ventilation is not as perfect, the eliminating organs are not as active, hence they are far more susceptible to the action of any morbific agent; besides, I am not sure but that the system may lay up a store of these poisons.

In persons who eliminate rapidly this would be prevented. We see persons who can drink large quantities of alcohol in a short time, but the system throws it off rapidly, and they become intoxicated slowly; while in others who eliminate slowly, small quantities of alcohol rapidly intoxicates them.

This is in accordance with our mode of treatment. We direct our remedies to certain organs or parts with a view of assisting nature in her work.

The Dr. inquired if any one had examined the small-pox poison microscopically to investigate the cell thrown off.—(Dr. Connor,—The cell theory is exploded.)

Dr Gilbert said that he regarded the cell as the first step toward organization, but would use the term bioplasm as a better one. In variolous cases the poison thrown off must be living bioplasmic matter in order to reproduce itself.

Dr. Connor.—Small-pox occurs with more severity among those who are crowded together and poorly fed. We know that in states of starvation the system will absorb any substance more readily than in health. Starvation, by diminishing the quality and quantity of the blood, causes the lymphatic vessels to absorb more readily any substance that may be presented to them. Those people among whom small-pox rages are usually in this condition; whenever the small-pox virus is brought into a room where these persons are confined, they are in just the condition to absorb it; in addition to vaccination what we most need to prevent the spread of the disease, is to diminish conditions for absorption, with food, good air and ventilation. In vaccination we introduce a nitrogenous substance into the arm; it is taken up by the lymphatic capillaries, carried in the lymphatic circulation through various sets of lymphatic glands, and emptied into the venous blood; thence it is distributed to every tissue of the body through the arterial circulation. Facts from physiology and pathology render it certain that the vaccine matter in some way modifies every living tissue in the entire body. In this view of the matter it is easy to understand why, during the entire period of its growth, the child should be vaccinated every five or six years. Clinical observation has demonstrated that only those that have thus been vaccinated are protected from small-pox.

Dr. Spalding said that he would like to enquire of Dr. Connor how it was, if vaccination modified all the tissues of the body, that we are able to innoculate ourselves with syphilis?

Dr. Connor.—The modification produced by vaccination in the system is no obstacle to the action of the syphilitic poison, but only to that of the small-pox poison. Dr. C further said that two distinct processes could not affect the same cell at the same time. Why it was that one person whould have a mild and another a severe type of the same disease, he thought was due partly to hereditary influence and partly to cell resistance, and the latter was due to the hygienic conditions of the individual. Practically, then, there are two things in relation to the individual to be taken into consideration in order that he may resist disease. 1st. The formative power should be kept as perfect as possible, and 2d. To keep out all disturbing elements. A perfect type of a physical man will not be affected by these poisons.

The Dr. regarded fear as one of the greatest of the predisposing causes ; nearly every one fears small-pox ; fear interferes with all the digestive processes and indirectly diminishes cell resistance.

Dr. Gilbert said that if the poison was present it was more than likely it would be absorbed, but this was a tacit admission that there was a poison to be absorbed. Neither good hygienic measures or the most favorable conditions of health would prevent the infection from taking place ; the only sure preventive is perfect isolation, hence, the more thorough this isolation is made, the sooner shall we get rid of, or prevent the spread of variola when it appears amongst us. The observance of every other condition, however good in itself, to the neglect of this, would avail nothing to hinder contamination, and what is true of this is also true of all other infectious diseases.

Adjourned.

J. D. MUNSON, M.D.,
Secretary.

DETROIT, February 13th, 1877.

The President, Dr. Geo. G. Andrews, in the chair.

PATHOLOGICAL SPECIMENS.

Dr. E. W. Jenks presented to the Society an exceedingly interesting, as well as rare specimen—a small portion of a liver that had undergone acute rapid fatty degeneration from malarial poisoning, and made the following remarks in regard to the case: "The patient had been feeling poorly for a few days and when I was called to see her was suffering from acute pain in the umbilical region, due I thought at the time to spasm of the intestines. The pain did not come on suddenly as she had felt more or less of it during an afternoon sleighride with some friends. Simply prescribed an anodyne. The next morning I found that she had passed a very bad night; had had a very severe chill in the early part of the evening, and copious evacuations from the bowels during the night; cannot say whether they contained bile or not. The pains continued very severe; temperature, 103¾° F. Gave a hypodermic injection of morphine, and half an hour later—it not relieving the distress—another was given. At 5 P. M. she was much worse, seemed moribund. Dr. Andrews was called in consultation; stimulants were administered freely, also morphine ,for I believe that morphine acts as a stimulant in such conditions; under their use the pulse came up and she soon rallied. Temperature 100½° F. The next day she was more comfortable; very little fever. On the 3d day the symptoms were worse, and patient passed clay colored stools. Believing that it was a form of malarial poisoning quinine was prescribed. Temperature highest in the morning; evening slightly above the normal. On the 4th day the patient was delirious. Quinine could not be retained on the stomach; ordered suppositories of quinine, hyoscyamus and camphor. No benefit derived, but delirium more violent; thought it might be due to the hyoscyamus, and withheld it; at times pain over the intestinal canal; slight tenderness in the umbilical region;—could detect no peritonitis. This condition continued without much change for several days—seemed neither better nor worse. Toward the last there were fœcal discharges, with indications of general intestinal catarrh.

[illegible] char-

[illegible] feeble
[illegible] dermic
[illegible] good
[illegible] There
[illegible]

about 101° and evening 100°–100½°. On the well days or the remission days, the morning temperature averaged about 100°; evening, 99°. On the 8th and 9th days it was 101° and 99½° morning, and in the evening little above the normal.

10th	Day,	Temperature,	Morning,	102°	F.
11th	"	"	"	103½°	F.
11th	"	"	Evening,	101°	F.
12th	"	"	Morning,	103¾°	F.
12th	"	"	Evening,	101¾°	F.
13th	"	"	Morning,	104¾°	F.
13th	"	"	At 5 P. M.,	102°	F.
13th	"	"	At 6 P. M.,	102¾°	F.

At 12 M., on the 13th day the respiration was very slow and had been during the morning and night before; it was labored and had heen as low as eight times per minute. This was due to the nervous exhaustion no doubt; atropine was administered and the respirations soon became fuller, faster and stronger The pulse very weak and rapid. Sent for Dr. Jenks. and when he arrived the patient was moribund.

Dr. Jenks, one point of interest after excluding all inflammatory diseases, was the tendency to tympanitis, showing that there was some decomposition taking place in the intestinal canal, with paralysis of its muscular apparatus, owing to the absence of bile in the tract. Nux vomica and salicylic acid were administered to relieve this. The Dr. thought the delirium might have been due to a retention of cholesterine in the system —cholesteræmia.

PREVAILING DISEASES.

Dr. Bradley had seen quite a good deal of catarrhal pneumonia (and a few cases of acute malarial trouble in children) which he attributed to the digging of a drain to the house.

Dr. Noyes reported a case of gonorrhœal ophthalmia, affecting both eyes, appearing three days after birth—the most severe case he had ever seen. There was a great amount of swelling and discharge; had but little expectation of saving the sight; regarded it as a *sine qua non* of treatment to resort at once to the topical application of the much-abused nitrate of silver in substance (mitigated) to the everted lids, after washing away the matter and diluting it before turning them down upon the eyes. He said "much-abused" because there had been considerable discussion and difference of opinion among some oculists in regard to employing it at all in young children, such evil results having so frequently followed its injudicious use. Under this treatment, repeated every day—sometimes twice a day—keeping them free from matter by frequently washing them out, the eyes get well.

We do not always know whether the cause be a gonorrhœal or leucorrhœal discharge; but in this case there was no doubt. Ophthalmia neonatorum differs in no respect from the same grade of inflammation occurring in the adult,—it assumes the same character either of the purulent or catarrhal form, and demands similar treatment. The more frequent implication of the cornea in infants, as stated by some authorities, with suppuration may be accounted for, it seemed to him by the ignorance and want of proper care they so often receive. These cases demand the constant, watchful care of the attending physician, and should never be entrusted to the nurse. He had seen many cases of loss of sight, from want of proper care or ignorance in treatment. Had a case in this city brought to him with complete leucoma of both corneæ,—entirely blind, and for them nothing had been done save the constant application from the first, of warm poultices, by order of the attending physician, (Homœopathic), the very worst application almost that could have been made to them. The matter, which was very abundant aggravated by the poultices, had received no attention, fortunately the cornea cleared up under the topical treatment with nitrate of silver, (mitigated), and sight was restored. The first indication--next to prevention,is to see to it that the eyes are thoroughly cleansed of the matter by the frequent use of warm water—observing this, that the use of a weak collyrium of alum or sulphate of zinc 1 to 2 grs. ad ℥j used two or three times a day in an ordinary case is all that is needed; if, however, the discharge becomes more abundant and creamy, strong astringents must be employed, (zinci sulph. grs. ij, alum grs. iv, aq. destil ℥i,) or as I have already indicated, nitrate of silver,—

either mitigated or compound) may become necessary, but this in substance should only be used by the physician who understands how to regulate and localize its effects.

Society adjourned.

J. D. MUNSON,
Secretary.

Flint Academy of Medicine.

FLINT, April 9th, 1877.

Flint Academy of Medicine met at Dr. Willson's office Tuesday, March 6, 1877; President, Dr. Fish in the chair. Members present, Drs. Buckham, Clarke, Cogshall, Eastman, Fairbank, Howland, Hurd, Millard and Willson. Minutes of the last meeting read and approved.

Drs. Eastman and Cogsholl brought before the Academy a case of enlargement of the leg, just above the ankle-joint, and asked the opinion of the members on the case.

Dr. Willson thought the enlargement was due to a derangement of some of the nerves, perhaps the vaso-motor.

Dr. Fairbank asked the opinion of the Academy on a case in which there seemed to be a tumor nearly opposite the umbilicus, which was movable and was accompanied by obstinate vomiting and a constipated condition of the bowels.

Dr. Willson said he had a case similar to Dr. Fairbank's some years ago, in which the remedies which gave the most relief were bismuth, tr. nux vomica, with muriatic acid, pepsin and sherry wine.

Dr. Buckham said he had a similar case several years ago, in which the *post mortem* showed a small tumor attached by a pedicle to the liver.

Dr. Willson referred to a case in which there was a constipated condition of the bowels, and in which he had used violent purgatives without relief, but which finally yielded to small doses of calomel, ipecac, podophyllin and chlorate of potash.

Dr. Eastman opened a discussion upon the effects of mercury upon the system, advocating its use in bilious and similar fevers met with in this climate. He also spoke highly of its use in inflammatory diseases.

Dr. Buckham followed in some remarks, in which he claimed that he did not find mercury necessary in treating fevers, since he regarded it too much of a depletive, but in inflammations he esteemed it very highly.

Dr. Millard said that in malarial fevers he thought there were fewer relapses when quinine, followed by iron without mercury, was used.

Dr. Clarke thought disease the most powerful depletive we had to contend with. He said he had met some cases of ague, which would not yield to quinine, but were easily cured by the exhibition of mercury. In such cases, he thought there was some inflammatory condition which the mercury removed.

Dr. Willson thought he could not get along in practice without mercurials. He said he thought he had lost some cases which he might have saved with a few doses of calomel.

Dr. Millard said he did not wish to be understood as discarding mercury entirely, but unless he was sure what he was giving it for he would not use it.

Dr. Buckham did not wish to condemn its judicious use, but he thought very many times it had been used unnecessarily.

Dr. Cogshall said very frequently the truth was to be found between two extremes. Such he believed to be the case with mercury. He had found it very beneficial in the early stages of fevers.

The president appointed as the essayist for the next meeting, Dr. Millard.

On motion the society adjourned for one month.

TUESDAY, April 3, 1877.

Flint Academy of Medicine met at Dr. Millard's office. Pres. Dr. Fish in the chair. Members present Drs. Clarke, Fairbank, Millard, Willson, and Hurd.

Dr. Millard offered the following preamble and resolutions, which were unanimously adopted.

WHEREAS, This society has learned, with the most profound regret, of the death of Prof. H. S. Cheever, of Ann Arbor, one of the brightest lights of medicine, and

WHEREAS, His eminent abilities, high professional attainments, and his social qualities both as a teacher, and as a companion, have endeavored him to our profession, and

WHEREAS, By his early death, stricken down in the years of his usefulness, the profession of the state has lost one of its truest and noblest physicians. Therefore be it

Resolved, That while we bow in reverence to the will of Almighty God, we wish to express our sorrow at the loss of so true a friend and benefactor.

Resolved, That a copy of the above be sent to his wife and family, as a token of our profound respect for our worthy brother.

Dr. Millard commenced to read an essay on urea, but as he was unable to finish it, on motion of Dr. Willson, a vote of thanks was tendered to the Doctor with a request that he be continued a essayist for our next meeting.

Dr. Fairbank reported further upon the case reported by him at the last meeting. He said the patient was slowly sinking, that counsel had been called who thought it a case of intussusception of the bowels.

Dr. Fish reported the following interesting case: W. B., age 79, light complexion, blue eyes, light hair, strictly temperate although fond of good living, originally a hatter, more lately a farmer and has been a preacher. Born in Maryland, came to Michigan over 40 years ago. Has been an invalid for several years. Six months ago had alarming heart symptoms, and for two months has suffered with a sense of impending suffocation and occasional severe pain in the region of the heart. Pulse irregular, weak and intermittent; dropsical effusions, and ten days before death gangrenous spots on instep and ankle; died March 14th. Autopsy 12 hours after death. Body still quite warm; spots of gangrene on foot and ankle, with something of same appearance on one hand and wrist; lungs healthy except slight adhesions of pleura to thoracic walls of long standing; liver normal in size and healthy in appearance; gall bladder filled with thick inspissated bile, in which there were a number of biliary calculi; stomach, intestines and bladder normal; kidneys considerably enlarged with spots of white fatty degeneration; spleen degenerated into a dark, nodulated, hard feeling mass, and so intimately attached to the peritoneum and abdominal walls as to require careful dissection to separate it. The condition of the spleen and kidneys was doubtless of long standing.* The heart and membranes occupied their normal position and there was nothing in the appearance of the pericardium or its contents to indicate serious disease. The heart itself was about natural as to size; it had, however, a flabby feel to the touch, and in handling a little carelessly the fingers broke through the walls, penetrating the right ventricle, the walls of which being very much attenuated and non-resistant—scarcely more so than ordinary brown paper. There was considerable ossific deposit at the opening of the aorta and at the base of the mitral valve. The aorta, from its junction with the heart to and including its arch, was greatly enlarged. There were many points of ossific deposit along the course of the descending aorta and just above the bifurcation when it divides into the iliacs, a piece of the vessel taken out presented the appearance of a bony tube. The left ventricle of the heart contained an organized fibrinous substance nearly two inches in length, of unequal size, one end of which extended to the orifice of the aorta. The cardiac (coronal) arteries, from their origin to extremest ramifications, were perfectly ossified, presenting when dissected out a wonderful net work of bone, enveloping that portion of the heart usually coursed by its arteries and their branches.

E. W. HURD,
Secretary.

G. W. FISH,
President.

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*More than 50 years ago this man had chills and fever, with enlarged spleen, for which he was treated many months, and finally, at the advice of his physician, emigrated for the benefit of his health.

Abstracts From Exchanges.

Practice of Medicine.

Phthisis Pulmonalis.—Dr. Austin Flint, in an article in the *American Practitioner* for February, gives a review of his work "Phthisis: its morbid anatomy, etiology, symptomatic events and complications, fatality and prognosis, treatment and physiological diagnosis, in a series of clinical studies." He considers this review necessary from the fact that he fears that certain points brought out in his analysis of the six hundred and seventy cases given in his work have not been properly recognized by the profession. One of these points is that which refutes Niemeyer's assertion "We have no hesitation in saying that the greatest danger for the majority of consumptives is, *that they are apt to become tuberculous*; that is, the greatest danger is from the secondary production of the granulations to which Virchow has restricted the name 'tubercle.'" Dr. Flint's cases demonstrate that this is an infrequent cause of death in cases of chronic phthisis and that the fatal termination is, as a rule, owing to either the exudation into the air-cells, together with the subsequent processes involving danger of the pulmonary structure, or to grave complications such as pleurisy with effusion, intestinal ulcers, peritonitis, and not to the developement of granulations or miliary tubercles. On the question of etiology, Niemeyer affirms that "It (phthisis) arises with rare exceptions through extension of a chronic catarrh;" that "A simple genuine catarrh may extend into the air vesicles in a person of apparently perfect health and vigor. Healthy men should never feel sure that they will never die of an acute or chronic catarrhal pneumonia—that is, from phthisis—proceeding from a cold and resulting in caseous infiltration and destruction of the pulmonary substance." Notwithstanding that these views were subversive of those based on the clinical researches of Louis, they were adopted by not a few members of the profession and the name of "chronic catarrhal pneumonia" was adopted as the most appropriate name for pulmonary phthisis. Dr. Flint's cases go to prove that pneumonia, pleurisy and bronchitis have little or no tendency to the developement of phthisis.

As regards pulmonary hemorrhage, Niemeyer asserts that it occurs more frequently than has been supposed when the lungs are free from phthisical disease, but that its occurrence indicates a phthisical predisposition. In these views he is borne out by Dr. Flint's analysis of cases. Niemeyer, however, did not consider bronchial hæmorrhage a favorable omen in phthisis, but on the contrary that is an unfavorable event in such cases. In this assertion he is not borne out by Dr. Flint, who is supported in regarding the occurrence of hæmorrhage a most favorable symptom by Ware's statistics.

Of Dr. Flint's cases forty-four recovered and an analysis of these with those in which there was an arrest of the disease warrants the following conclusions: Other things being equal, the prospect of recovery is in proportion as the phthisical affection is small. The prospect of recovery is not greater after, than before, thirty years of age. Sex appears to have no influence on recovery. The absence of family predisposition to the disease, is not of much importance as regards a favorable prognosis. Chronic laryngitis, pleurisy with effusion, as antecedent and intercurrent affections, and perineal fistula, are not unfavorable. Persons of resolution and perseverance, who appreciate the nature of the disease, and are determined to overcome it, bringing the power of the will to bear on the means of recovery are those who most frequently recover. A certain proportion of cases tend intrinsically to recovery, the disease undergoing arrest or ceasing to progress from its own limitations. Hygienic treatment as distinguished from medicinal is of the greatest importance, medicinal treatment without the hygienic being comparatively feeble while the hygienic alone was attended by as favorable results as when combined with the most approved medicines. Temporary change of climate, change of habits on the parts of those who are confined within doors and sedentary, and sea voyages are the most important factors in hygienic management.

The general tendency of the conclusions Dr. Flint arrives at, is to lessen confidence in medicine and purely climatic influence in phthisis, and to enhance the value of hygienic measures which are more available, involving less hardship than the pilgrimages made by so many phthisical patients, with the risk of dying away from home and friends.

PULMONARY PHTHISIS—ITS THREE VARIETIES.—Dr. A. L. Loomis *(Medical Times, January 6, 1876)* recognizes three distinct forms of pulmonary phthisis:

(1) Catarrhal, which begins as an ordinary catarrh—nasal, pharyngeal, laryngeal or bronchial. Emaciation does not set in till some time afterwsrds. These symptoms are characteristic, and a certain proportion of the cases tend to recovery.

(2) Tuberculous—begins with progressive emaciation—with a hacking cough, without expectoration, and no catarrhal symptoms. This form he regards as fatal.

(3) Fibrous—characterized by fibrous indurations, with dilated bronchi and resulting cavities.

PROGNOSIS OF PHTHISIS.—Dr. Wilks, of London (*Med. and Surg. Reporter*, Dec. 16th, 1876) says: Hæmoptysis is most frequently a symptom of the earlier periods of phthysis, and hence it is often difficult, or even impossible, to find physical signs. Later in the disease, the vessels have contracted or become obstructed before softening occurs. 2nd. The discovery of cavity signs should not condemn the patient, as they are often evidences of a chronic form, and may remain stationary for a long period. 3rd. The worst cases are those in which but little or no physical alteration is discovered, and in which acute tuberculosis brings about a fatal issue, without excavations. 4th. The signs of a cavity are: Dullness, amphoric breathing, pectoriloquy, gurgling and bruit de pot fete, of which the moist sounds are the most conclusive. 5th. The pigeon-breasted, narrow chest is rather the sign of early rachitis than of phthisis, whilst the flat chest, with the sternum rather falling in than protruding, is the truly phthisical one.

TREATMENT OF SPASM OF THE GLOTTIS.—(*Journ. de Med. et de Chir.*, Vol. 47, 1876. *Med. Record*, Feb. 10, 1877). Attacks of spasm of the glottis are much more severe than those of false croup, being accompanied by contraction of the muscles of respiration, especially of the diaphragm, and sometimes even by general convulsions. There is no time to employ electricity, friction, chloroform, etc., as is usually recommended; and hence the practicability of this plan. M. Charon states that inhalations of ammonia rarely fail to cut short the attack, and accordingly advises mothers who have children subject to such attacks to always carry a bottle of ammonia with them. He states the case of the wife of a physician, who, whilst looking for her misplaced ammonia bottle one day, lost her child in such an attack, though she had carried him through many former ones by the use of ammonia.

THORACENTESIS IN EFFUSIONS OF THE PLEURA.—*(Med. Record*, Jan. 27, 1877).—From the valuable papers of Dr. B. Robinson, of the Manhattan Eye and Ear and the New York Charity Hospitals, are taken the following conclusions:

1. Thoracentesis should be performed as soon as practicable, in all cases where there is imminent danger to life from the presence of a pleuritic effusion.

2. This operation must be made without delay, in all cases, when the effusion is very large. This rule, too, is absolute, and is in no wise invalidated—either by the nature of the liquid contained in the pleural cavity or the time it has taken to form.

3. Two symptoms only can give us certainty in our diagnosis of an effusion. The absence of either places us in a state of doubt. They are:

   a. Absolute dullness over the anterior portion of the chest, except, perhaps, under the clavicle, where a note of high tympanitic pitch may be detected.

   b. Complete absence of respiratory or vocal sounds, either healthy or morbid, in an extent corresponding with that where absolute dullness is present.

4. Other physical signs are not of equal value with the preceding, nor do they, if present, always lend additional assurance of accuracy of diagnosis.

5. The physical law which governs the transmission of sound in endo-pleural liquids seems to be quite opposite to what it is in the case of gases ; for, the denser the liquid, the more do the sound waves diminish in intensity.

6. The greater the amount of fibrine in the effusion, the better is the prognosis ; but, if the quantity of the former is of small amount, or, if none be present, the prognosis is always grave.

7. Thoracentesis should be performed in moderately large effusions, for the operation during the febrile period, even of pleurisy, has no injurious effect upon the ulterior march of the effusion, while the presence of the latter can only have a bad influence, as it plays the part of a foreign body, interferes with the function of the lung, and narrows the field of hematosis.

8. Whenever, in children, absorption of fluid is delayed, we must anticipate the modification of the liquid into one of a purulent nature, because, in the young, serous pleuritic effusions have a tendency to become purulent

SIGNS OF THE FIRST STAGE OF PHTHISIS.—(Dr. J. E. Pollock, *Lancet Med. Reporter.*)—Since the first stage of phthisis consists of a filling up of the alveoli by inflammatory or tubercular matter, it is recognizible by the signs, which indicate altered physical conditions of the lungs. If a portion of it, surrounding a pervious air tube, be solidified instead of the gentle vesicular murmur of inspiration and the equally gentle expiration sound and the even percussion-note on both sides, which are heard in the normal condition, we catch a dull note on percussion, a feeble, harsh or jerky and interrupted inspiration, a prolonged expiration and a transmission as though a tube of the voice and heart sounds by auscultation. From all this we conclude that the physical condition of a portion of the lung is changed, but as to the nature of the product which has altered it, these signs tell us nothing. The feeble respiration may be due to obstruction arising from any cause in one or more bronchioles, to anything which increases the distance of the lung from the ear as pleuritic effusions or thickened pleura to emphysema. Harsh breath-sounds may be due to thickening of the walls of the air-cells, to induration causing pressure on the alveoli and to dryness of the mucous membrane of the bronchi. Prolonged respiration is due to the increased density and alteration in the elasticy of the lung. The bronchial character of the breathing and the great audibility of the heart sounds are due to the increased conducting power of the lung. Now, if several of these signs together with dulness co-exist in one case and the space presenting these characteristics be limited and one-sided, you may be sure that solidification has taken place around the alveoli of that part, and if this condition has been preceded by a slight loss of flesh, sub-febrile symptoms and with dry cough or a scanty flocculent expectoration, you may be pretty sure that you are dealing with the first stage of phthisis.—*Canada Lancet, 1877.*

THE MALADY OF INNUTRITION.—(George Bayles, M. D., *New York Medical Journal*, Jan. 1877.)—The law of longevity is an actively operative law, as is proven by the observations of Dr. E. Jervis in the fifth annual report of the Massachusetts Board of Health, but its activity will be checked in the early future, particularly among us, by the growing results of the malady of innutrition if the present circumstances of things continue long in operation. The laws of heredity inform us that generally speaking, "like begets like," so that the highest standards of individual health, strength and mental aptitude in one generation are apt to beget corresponding ones in the following. Ante-natal innutrition is quite as common a cause of post-natal disease and death as is the impoverishment of the body through want, neglect, or ignorance after birth. This danger is a new one for us Americans, for abundance up to this time seems to have been our birthright, but the re-action from the severe financial depression which has swept over our country is so tardy, that evils formerly confined to the unrelievable poverty, are now in existence in the States. During the last three years it is estimated that fifty per cent of the medium class have suffered bad material changes in their worldly circumstances, some twenty.five per cent. being seriously involved in money difficulties which may never be overcome, and ten per cent. of those hopelessly deprived of anything which may preserve them from a life of "hand to mouth." Physically and materially poor parents besides running all the dangers of the diseases to which a badly nourished body exposes them, will probably endow their offspring with the same and increased unfortunate predispositions. But the trouble does not reside only in the poverty stricken home, for improper, badly prepared food irregularly taken and badly digested may also produce the same effects in the houses of the wealthy. Tuberculosis, nervous disorders, uterine irregularities, cachexias, pneumonitis etc., are increasing, but though the lack of food can not justly be considered their sole cause, yet regarding it as a positive condition, paving the way for more specific influences, it must be held as an important one, equal to if not greater than that of any other.

EXPECTATION OF SICKNESS AT DIFFERENT AGES.—Dr. R. Southy (*Med. Surg. Reporter*, Oct. 7, 1876) gives the following table with reference to the expectation of sickness by persons of average good health, not afflicted with any ineradicable or chronic ailment:

At 20 years, calculate on 4 sick days yearly; at 20 to 30, 5 or six days; at 45, 7 days; at 50, 9 to 10 days; at 55, 12 to 13 days; at 60, 16 days; at 65, 31 days; at 70, 74 days.

COAL GAS—CASE OF POISONING BY ITS INHALATION.—Dr. S. Lokee (*Brit. Med. Jour.*) reports a case of the above nature, with results of *post mortem* examination. The patient was a boot black, who had passed six hours in a room in which one gas jet was burning, and one discharging gas while fully open. Patient lived sixty-eight hours after he was found. Of all the remedies employed, cold affusion alone seemed to exert the slightest beneficial influence. The most noted *post mortem* lesions were congestion of the brain, the minute clots of extravasated blood which were found in large numbers throughout the brain substance, the dark claret color of the lungs, mottled bright pink spots, the distended condition of the right side of the heart, and the congestion of the kidneys.

HYPODERMIC ALIMENTATION.—Dr. Whittaker (*Clinic*, Jan. 22, 1876) reports a case of gastric ulcer, in which all ordinary modes of alimentation failed. He then gave hypodermic injections of milk, alternated with beef extract, every two hours. This treatment was continued for four days, the patient taking no food by mouth or rectum. Under it the temperature declined, the pulse became fuller and stronger, and the delirium and pain disappeared. Cod liver oil was now substituted for milk, and continued for three days longer. From this time the patient could take food by the stomach, and wholly recovered. In the progress of the case sixty-eight injections of cod liver oil were made. One day as much as four ounces of cod liver oil was introduced in eight injections.

Two small abscesses were formed from the milk—none from cod liver oil.

Dr. Krueg (*Wiener Med. Woch.*, Aug., 1875), reports a case of a lunatic, in which all other attempts at feeding being frustrated, he began the hypodermic injection of olive oil. The experiment lasted two months. The longest time of sustenance by hypodermic alimentation alone, was twenty days. The patient at last, finding he could not starve himself, consented to take food by the mouth.

Physiology.

LOSS OF SENSE OF THIRST.—Dr. Z. C. McElroy (Cincinnati *Lancet and Observer*, May, 1876) gives, as the result of his experience, observations and inquires on this subject, the following:

1. Water supply, with limits not at present well defined, is a necessary condition of healthy human life, probably depending on the extent of molecular work done—more work more water, less work less water—but not made known in many cases by the sensation of thirst.

2. A large number of human beings seemingly have not, or if they ever had, have lost the sensation of thirst for water, and, therefore, fail to take the water supply required for the healthy performance of the various functions of their bodies, and constitute a class of true hydroadipsics.

3. A prominent feature of professional investigation into the nature and causes of so-called chronic diseases should, in each individual case, include inquiries into the water supply of their bodies, and, if found deficient, make adequate provision for supplying it, either by water as water, or weak saline solutions, or vegetable infusions.

4. Like defects in water supply, in acute affections, especially fevers, frequently occur, and should receive professional attention.

MOVEMENTS OF THE BRAIN.—(*The Doctor*, Feb. 1, 1877) Sigs. Giacomini and Mosso, from observations upon the person of a woman, 37 years of age, who had lost a considerable portion of the frontal and parietal bones from the ravages of syphilis, describe the following movements of the brain: 1. Pulsations produced at each contraction of the heart; 2. Oscillations which correspond to the movements of respiration; 3. Undulations which are larger curves caused by movements of the vessels during attention, cerebral activity, or sleep.

BILIARY SALTS—THEIR ACTION.—(Lond. *Lancet*, Sept. 1876, Cin. *Med. News*, Feb. 1877), Drs. Feltz and Ritter have found that by injecting into animals small doses of a mixed solution of glycocholate and taurocholate of soda in the same proportions as in normal bile, a pathological state, lasting for five or six hours, only could be induced, which was marked by bilious vomiting, diarrhœa, a slow pulse, and a slight fall in temperature and in the frequency of the respirations. The slowness of the pulse and the diminished arterial tension were most marked soon after the injection of the bile acid, but persisted for some time after their elimination. Section of the vagi and the sympathetics did not prevent the occurrence of the phenomena. Hence they are independent of any special action on the nervous system, unless on the cardiac centres themselves. When the heat was removed from the body and allowed to imbibe the solution of the bile salts, its movements became irregular, and then ceased altogether. Ordinary muscular fibre also refused to contract in a quarter of an hour after the same solution was dropped on it, while under a like solution of chloride of sodium, its contraction was quite vigorous and energetic after a longer interval. Thus the independence of any nervous influence was decisively shown. This special paralysing effect on a muscle at once explains the slow pulse, the weak cardiac contraction, the diminution of the arterial tension, the lowering of the temperature and the lessened number of respirations. The bile solution also retarded the movements of the blood corpuscles. In this way we have the data for more precise explanation of the effects of jaundice.

TESTING THE URINE FOR ALBUMEN.—(Dr. W. H. Kesteven, *Lancet, Med. and Surg. Reporter*, Jan. 13, 1877).—To test urine at a patient's house without test tubes, etc., has been a desideratum, and the doctor communicates the following ready means: Take a thin glass microscopical cover, about an inch square, (of which three or four can be carried in the ordinary pocket case,) and place upon it a drop or two of the suspected urine; then with a pair of dressing-forceps hold it over the flame of a candle. While the under surface of the glass will be blacked by the smoke, the urine will be boiled so that the white precipitate, if any albumen be present, will be rendered quite evident by the black under surface. If the urine is to be tested cold, a drop or two of it is placed a little to one side of the centre of the cover, and a drop of nitric acid on the other. By inclining the glass the two will run together, and after the fumes have passed away, any precipitate will readily be seen.

Action of Remedies.

CHOLOGOGUE ACTION OF EUONYMIN, SANGUINARIA, IRIDIN, LEPTANDRIN, IPECAC, AND JALAP.—Prof. Rutherford and M. Vaginal, in some experiments on the biliary secretions of the day, reach the following results: Euonymin produces active purging, without griping. Five grains of the impure resin powerfully increased the flow of bile and the intestinal secretion.

Sanguinaria greatly increased the secretions of bile, and especially the watery portions. The intestinal secretion was also slightly increased. The doses used were one-quarter of a grain of the impure resin, formed by precipitating from the tincture, by water acidulated with hydro-chloric acid.

Iridin, from iris versicolœ, was prepared in a similar manner. In doses of from one to five grains, it greatly increased the flow of bile. It was more powerful than euonymin, but less so than podophyllin, and irritated the intestinal glands less than the latter.

Leptandrin had no appreciable effect upon the biliary secretion.

Ipecac. produced a marked increase of the secretion of bile, but no purgation.

Jalap increased the flow of bile and intestinal juice. but, in both, there was a large increase in the watery constituents.

From these facts it appears that biliary flow may occur without a cathartic effect, and vice versa.

BROMO-HYDRATE OF CONIA.—(*Reportoire de Pharmacie, New Orleans Med. and Surg. Jour.*, Jan., 1877).—M. Mourrut states that this salt has been successfully employed in pertussis, in doses of one-twelfth grain, if necessary, every hour, for a child three years of age; or one-thirtieth grain for a child of one year, and one-sixth grain for adults. Hypodermically, in quantities of one-twelfth grain, good results have been obtained in sciatica. The pure salt occurs in colorless, prismatic needles, soluble in water and alcohol; less so in ether and chloroform; odorless. nearly tasteless and diliquescent. Exposed to the light, it turns red, but does not decompose; therefore, it should be kept dark.

SULPHITES AS ANTISEPTICS.—(Dr Prosper de Pietra Santa, *Journal d' Hygiene*, Aug. 15, 1876; *Sanitarian*, Jan, 1877).—The Doctor's conclusions are all based upon his theory of "fermentation in the production of disease," and must, therefore, be interpreted according to the reader's own idea upon that subject. "Solutions of the sulphites are successfully employed:

"1st. In dressings for burns, wounds, or injuries, whenever there is any puriform exudation.

"2d. In gargles, whenever there is false membrane present on the buccal or pharyngeal mucous surface, or around the tonsils.

"3d. As a lotion for the skin in eczematous and erythematous affections, and in redness of the face, and also in the lying-in room.

"4th. As an injection in fluor albus, in dysmenorrhœa and in eruptions on the genital organs presenting the characteristics of acne."

"The conclusions to be drawn from these patient investigations are:

"1st. That many diseases—the so called catalytic—originate, primarily, in a fermentation of the principles of the blood.

"2d. Sulphurous acid has the property of preventing and arresting the fermentation of animal and vegetable substances.

"3d. The anti-fermentative properties of sulphurous acid are found, in their most useful form, in the alkaline and earthy sulphites, which are well borne by the system.

"4th. To render the presence of the sulphites still more durable in the system, and to retard their conversion into sulphites, it is necessary to substitute for the sulphites the hyposulphites of the same base.

"5th. The diseases in which the beneficial effects of the sulphites have been determined are: Affections that are characterized by a pathological ferment of some kind; malarial fevers; puerperal fevers; affections arising from the absorption of purulent matter; diphtheria; phthisis pulmonalis, during the period of softening, and during the breaking down of the tubercles; solution of continuity, accompanied with acrid secretions, and severe wounds and varicose ulcers."

ŒNOTHERA BIENNIS.—(*American Practitioner*, Jan., 1877). —Dr. N. S. Davis, of Chicago, highly recommends the Œnothera Biennis as a mild, but efficient, sedative to nervous sensibility, acting more especially on the pneumogastric nerve. In his experience he has found it most useful in those cases of asthma associated with chronic indigestion, or gastric irritability, where anodynes or expectorants cannot be borne on account of the other unpleasant effects which they produce. He employs most frequently the fluid extract, in doses of twenty to twenty-five drops every four hours.

THE TOXIC PROPERTIES OF GLYCERINE.—(*Bull. Gen. de Therap. Pac.—Med. and Surg. Jour.*, Jan., 1877). 1. Glycerine, chemically pure, causes in the dog, in twenty-four hours after being introduced under the skin, deadly effects, when the dose is in the proportion of one drachm to a pound of the weight of the dog. 2. The toxic effects (acute glycerism) are comparable, within certain limits, to those of acute alcoholism. 3. The microscopic lesions in glycerism are analogous to those of alcoholism, which tends to induce the belief that the toxic effects are almost the same. 4. From a therapeutic point of view, there may, therefore, be some danger in introducing glycerine into the economy in too large quantities.

Pathology.

STRUCTURAL CHANGES PRODUCED IN THE LIVER BY OBSTRUCTED OUTFLOW OF BILE.—The *Lancet* (Dec. 1876), gives the interesting results of a series of experiments upon guinea-pigs, in which the common duct had been ligatured. The operations and examinations were performed by MM. Charcot and Gambault, of Paris. The animals were killed at different intervals after the ligature, the last surviving until the twenty-third day. Macroscopically, the organ was in all cases enlarged and indurated, of a pale yellow color, and sometimes of a nutmeg appearance. The ducts and gall bladder were distended with bile mixed with mucus. Microscopically, dilatation of the bile-ducts in the portal canals to ten or fifteen times their normal diameter was apparent, whilst the preservation of their epithelial lining demonstrated the great proliferation of this epithelium. The inter-lobular spaces were much enlarged and an infiltration of small cells crowding upon the lobules on all sides gave evidence of a peri-lobular sclerosis. The amount of these changes depended upon the length of time succeeding the operation, but in the first examined, the already present sclerosis testified to the rapidity of the process of its evolution. The lobules themselves were but slightly modified, their change being caused by the gradual disappearance of the outermost cells in the encroaching connective tissue. MM. Charcot and Gambault consider this indurative change as depending upon bile retention. The retained bile first acts upon the mucous membrane of the ducts, irritative process extends to the other coats, to the tissue composing Glisson's capsule and to the thin connective bands that separate lobule from lobule and here occurs an accumulation of inflammatory growth causing the gradual disappearance of the cellular structure of the lobules, or a true sclerosis.

WHOOPING-COUGH.—*(The Doctor,* Feb. 1877.)—M. Guensau de Mussy, before the Academie de Medicine, affirmed his conclusion that whooping-cough is due to pressure on the pneumogastric by swelling of the bronchio-trachial ganglia. This accounts, according to him, for the fact that the spasmodic cough follows the catarrhal period and persists for months, sometimes for years. The complete resolution of such ganglia, which are at once affected by a cold because the tendency to relapse and when the ganglia are but slightly affected, this fact accounts for the spasmodic cough being scarcely noticeable.

VARIATIONS OF UREA IN DISEASE OF THE LIVER.—(*Archives de Physiol.* July, September and October, 1876. *London Med. Record,* Jan. 15, 1877.)—Mr. Bronasdel in his lengthy paper upon this subject, sums up his conclusions as follows:

1. In acute yellow atrophy, the urea diminishes or disappears entirely.

2. In phosphorus poisoning, although each dose of the drug causes a temporary augmentation of the quantity of urea excreted, it slowly diminishes.

3. Some pseudo-malignant cases of acute jaundice have the primary diminution of urea followed by a urinary crisis, and plenty of urea is secreted; the liver, which at first seemed to become smaller, recovers its ordinary size.

4. On simple jaundice, the urea is not diminished, some-

times it is augmented. The quantity of urea is a means of prognosis.

5. In hepatic abscess, according to Parkes, at first the urea is augmented, but this requires verification; as the liver-substance is destroyed, it diminishes although fever may be present.

6. In biliary calculus, with obliteration of the duct and destruction of liver substance, the urea is diminished, especially during the attack of biliary colic. It is also diminished in hepatic intermittent fevers.

7. In both the hypertrophic and atrophic forms of cirrhosis, the urea is diminished.

8. In the congested and hardened liver of heart disease, in the fatty liver of phthisis, and when a considerable portion of the liver has been destroyed by cancer, and hydatids, there is a marked dimination of urea.

9. Active congestion of the liver caused increase of urea.

10. Lead-colic with retraction of the liver during the attack, gives only a small excretion of urea; as the liver regains its size, the former augments.

11. Passing glycosuria is often accompanied by an increase of urea.

12. In diabetes, the excretion of urea, reaches a higher figure than in any other disease. From these conclusions, he infers that the quantity of urea depends upon :

1. The integrity of the hepatic cells.
2. The greater or less activity of the hepatic circulation.

Surgery.

OZENA AND ITS TREATMENT.—From the *Med. Record*, Aug. 21, '75, we take the following digest of a recent French work on the above subject, by A. d'Azambuja:

1. Ozena is a chronic fetid coryza,—in other words, to be a coryza there must be chronic inflammation of the pituitary membrane or of the subjacent tissues, and a fetid condition of the breath.

2. It is almost always of a scrofulous or syphilitic nature;

rarely it exists without known cause, resulting from traumatation, the presence of foreign bodies or calculi in the nasal passages, or arising from destructive lesions happening as a complication during the decline or in convalescence of adynamic fevers. More rarely still it is an evidence of herpetism.

3. There is a simple, non-ulcerating ozena and fetid coryza without ulceration. The latter shows itself in two forms, the moist and dry. It is the result of scrofula, and it is very doubtful whether syphilis plays a part in its causation.

4. There is an ulcerating ozena, without osseous lesions, caused either by scrofula or syphilis. The ulcerations of scrofula invade the superficial structures, and then the deep being more irregular than those of syphilis. Syphilitic ulcers are caused by two different processes,—first by symptoms similar to those of the skin; second, by the softening of the gummata.

5. The most serious form of ozena is that which begins in the bones, the necrotic form, and is more frequently due to syphilis than to scrofula.

6. Ozena always accompanies the affection described as caseous coyza.

7. The treatment is both local and constitutional, the latter being required in syphilis and scrofula. The best method of local treatment consists in douches and direct cauterization of the ulcerations.

TREATMENT OF SEBACEOUS TUMORS.—(*Med. and Surg. Reporter*, Feb. 17, 1877.)—Dr. B. Hamilton, from the success which he has had in its use, recommends the employment of strong tincture of iodine in the treatment of those tumors. No bad effects follow the injection, and no scar remains in the former site of the growth. The following points are of importance:

1. Make the puncture with a sharp pointed bistoury. The aperture should be no larger than is necessary to allow the escape of the contents of the tumor, and the admission of the nozzle of the syringe.

2. Empty the cyst of its entire contents.

3. Distend the sac as much as possible, moving the point of the syringe in different directions, so as to bring the fluid in contact with every portion of the cyst wall.

4. See that no sebaceous matter remains, indicating that a portion, at least, of the cyst, retains its vitality.

SAFE AND RAPID CURE FOR ANEURISM.—(*Brit. Med. Journal*, Feb. 3, 1877).—Dr. Horace Dobell, submits to surgeons a simple suggestion for the cure of aneurism. It is to stop the circulation above and below the tumor, remove the fluid contents of the latter by aspiration, and replace them by an injection of spermaceti or stearin. The latter are insoluble in blood, but solid at its temperature; fiuid at a temperature low enough to allow of their being safely brought into contact with living tissues, and changes from liquid to solid with great rapidity; and are at the same time light, innocuous and unirritating. Their rapid solidification removes any danger of active or passive clots being washed away when the blood is allowed again to flow, while the time for the operation would be so short, that no harm would result to the other tissues on account of the arrested circulation.

Diseases of Women.

DANGERS OF THE PESSARY.—(*Notta*, *L'Union Medicale*, Nov. 14, 1876. *Chicago Med. Journal*, Jan., 1877).—Among several reported cases were:

1st. A woman 57 years old, suffering from a prolapse of the uterus to such a degree that the organ protruded from the vulva. After the application of a pessary, which completely relieved the difficulty, she had an accidental fall, the weight of the body coming directly upon the instrument, which produced great pain, and which was followed, in a few days, by an incontinence of urine. On examination, the instrument was found in the bladder, and, after the extraction of the former, considerable loss of tissue ensued, and a permanent vesico-vaginal fistula.

2d. A woman 35 years old, for some slight uterine disorder, coming on six months after the birth of her ninth child, had a Gariel pessary applied by a charlatan. This was followed by a very severe vaginitis, accompanied by a profuse and very fœtid muco-purulent discharge, whose abundance and horrible odor—no aid being obtained from the quack's treatment—caused the woman to seek Notta's advice. He discovered an abscess, which perforated the abdominal wall, leaving an intractable fistula.

3d. A third woman, suffering from a granular endo-cervicitis, which was progressing towards cure under Notta's care, was persuaded by a friend to consult the same charlatan as the last patient. He again applied a Gariel pessary, and when Notta was called, in six months, to the same patient, he found her dying with a peri-uterine phlegmon, peritoneal inflammation and abscesses. The surgeon instituted judicial proceedings against the malefactor.

PATHOLOGY OF MEMBRANOUS DYSMENORRHŒA.—(*Arch. f. Gynek., Bd. IX. hept.* 1, 1876. *Brit. and For. Med. Chir. Rev.*, Oct., 1876).—Dr. Biegal, whose competency, in every respect, to speak upon this subject no one can gainsay, regards the affection as an exfoliative endometritis. It is essentially characterized *(a)* by the expulsion of a membrane at the time of menstruation, and *(b)* by the expulsion of this membrane at indeterminate intervals, or recurring every month.

This exfoliative endometritis can and does exist without dysmenorrhœa. Nor is the expelled membrane the consequence of a very early abortion; but the affection may be the cause of sterility or abortion. It is not rare, moreover, to find it in virgins, and sometimes a monthly expulsion of a membrane has even been observed.

The affection is not specific; it comes on after primitive, or secondary endometritis. It is frequently connected with very different diseases—general diseases, such as cholera and phthisis; uterine diseases, such as flexions, and particularly retroversions; chronic metritis; tumors, especially fibroids and polypi, and mechanical irritation. The principal anatomo-pathological characteristic of the disorder is the formation of the membrane, and the latter's expulsion during menstruation, or metrorrhagia, or the uterine contractions which coincide with them, is but a consequence. The microscopical characters of the membrane are as various as the causes; but all specimens, however, have a common character. They are separated from the subjacent mucous membrane by a fibrinous layer, containing five round cells. They are formed, sometimes, by hyperplasia of the normal elements of the mucous membrane; sometimes by degeneration or destruction of its parts, glands and epithelium; sometimes by the production of embryonal elements; and, lastly, sometimes they contain round cells, flattened epithelium, and embryonal elements at the same time.—(*Amer. Journ. Med. Sciences*, Jan., 1877).

Editorial.

Notice to Correspondents, Etc.—Communications intended for publication, and books for review, should be addressed to "Editors of Detroit Medical Journal, care of E. B. Smith & Co., Detroit."

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Original Articles, Reports of Medical Societies, Observations, Correspondence, News, etc., of general interest, are respectfully solicited from every source. Articles should be practical and carefully prepared.

The Editors will not be responsible for statements made over the names of contributors.

Meeting of the Medical Alumni of the University.

The annual meeting of the Alumni of the Medical Department of our State University was held at Cook's Hotel, Ann Arbor, on the evening of March 27th. The gathering was eminently successful, both as regards the number in attendance and the spirit which pervaded it. For real good fellowship and spontaneous joviality it stood in marked contrast to the meeting of last year, and demonstrated the fact that when extraneous matters are eschewed and these alumni are permitted to carry our the legitimate object of their annual reunions, they are as wholesouled and good-natured a lot as can be found, the impression which last year's meeting conveyed, to the contrary notwithstanding. In addition to the alumni there were present at the meeting, by invitation, a number of representative medical men from different parts of the state.

The meeting was conducted by the President of the Alumni Association, Dr. Henry F. Lyster, who delivered the following pithy and characteristic address:

Fellow-Alumni of the Medical College of the University of Michigan:

We have returned once again to the honored precincts of our alma mater, as the children of the household come back to celebrate some annual festival, to renew the family ties and to strengthen the bonds of love which bind them to their home. The young man with his activity and enthusiasm, the man of middle age in his strength, and he whose silvery locks are growing thin, and whose stooping form is gently yielding to the weight of advancing years, have come up from the busy turmoil of the city, and from the tiresome and laborious country ride to strengthen the hands and warm the heart, and bring comfort to the dear old mother, and to receive in return her blessing.

We are in sympathy here as we look back over the long intervening years since we left these halls with the remembrance of one who recalls his childhood's home, in the beautiful words of the genial Hood:

"I remember, I remember
The house where I was born,
The little window where the sun
Came peeping in at morn;
He never came a wink to soon,
Nor brought too long a day,
But now I often wish the night
Had borne my breath away!"

From the college window the great, bright world which lies without is full of shining hopes and golden possibilities, but when in after years so many among us have failed to realize those opportunities, and foot-sore and weary have returned to the shelter of the old home, we appreciate the full sentiment of the verse.

We have come back that we also may be encouraged and strengthened by a more intimate association with the college to which we already owe so much. In her we have as safe a counsellor as we had twenty years ago. The lessons which have been set before her have been learned, though it has been at the expense of sore distress and great anxiety. The battle axe has penetrated the joints of her armor, and the iron has been driven into her very soul, yet she not only survives, but is able to hold up to the world her standard upon which is inscribed the talismanic motto, "Dare to do right." All honor to the grand army of the profession who, when they saw the watch-fires kindled on the mountains, rallied to her support, and came up with the war cry, "Hold the fort!"

I do not wish to arraign any of the many and various dogmas and peculiar tenets of the so-called schools of medicine. I do not wish to criticise the people for holding to all sorts of medical opinions, for they have in all historic times done so, and probably will continue to do so to a greater or less degree, as they will in matters concerning religion and politics; but I do wish to let it be known and understood that the alumni of the Medical College of the University of Michigan are marshalled with the battalions who stand for scientific instruction and rational investigation as the foundation of the armamentum of their knowledge, and who oppose dogmatic teaching, come from what source it may.

We stand by no medical traditions; we hold to no theories; we demand no belief; we ask no sympathy; we offer no offense; we do not call here for justice. We hold to one principle and upon that rock we build our house, and though the storms blow around it and the rains fall in torrents, and the lightning strike and the thunders shake it, yet it will stand securely, for its foundations have been laid upon scientific truth.

Truth will endure through all time; it cannot be eradicated, it will prevail.

I do not wish to be understood as saying that the medical opinions as taught and held to-day by our alma mater are all true, and may not in many, very many, instances be found to have been incorrect, and others be substituted in their places, and some of these be at some future time found equally erroneous. Scientific knowledge is only attained by thought and experiment and investigation and reasoning upon the experience developed from these. As in the past the wrecks of medical theories, in fearful numbers, are to be found bleaching along the coasts of time from the days of Esculapius to the present; so in the future will many a fair bark be launched into its ocean to sail buoyantly for a while, with all sails spread, but finally to go down to join the ghastly train of those who could not steer the Scylla and Charybdis of experience.

May it not be thought presumptuous in me to state that I believe that each and every one of those medical theories, wrecked though they may have been with their precious freight of tens of thousands of lives to answer for, whose unappeased manes warn us to consider well their most untimely taking off, was of some use and of permanent benefit to the profession by serving to place the study of medicine upon a scientific basis.

If, as now seems probable, the so-called pseudo-systems of medicine are here to come into comparison and competition with rational and scientific medicine, let us not advise our alma mater to shield herself behind any technicalities, or consult personal or professional taste or sentiment, but boldly to advocate the principles and practices developed by scientific investigations; and relying upon these alone, continue in the future as she has in the past, to stand up for the profession represented by them.

As the great Republic, assailed with false doctrines and threatened with destruction, buckled on her armor and unfalteringly waded through blood and the valley of death while maintaining the cause of popular government and personal liberty, the most noble and glorious cause for which the sword has ever been drawn since the world began, and came forth from the contest stronger and more worthy of our love and of the respect of all nations, so may our alma mater now, in the hour of her extremity, marshal under her banners not only all of her old commissioned alumni, but volunteers from the whole profession of the Union, and defend the principles of legitimate medicine against all those who seek to overturn the purity of her teachings, and engraft upon her the ephemeral theories of whatever plausible sect may at one time or another be upon the surface, and enable her to continue triumphant upon her course.

I do not believe that this contest will cease with the overturning of any of the many peculiar and ingenious theories now advanced. None now hold a bolder front than did Thompsonianism or hydropathy 40 years ago. As one disappears another will be brought forward into the arena, and error, hydra-headed, will again do battle.

It is in war that science has always conquered. The doors of her temple of Janus have been always open; her Galileos have at times been forced, by the inquisition of the enemy, to declare that the earth is flat and does not move, but it *is* round and it *does* move; and thus has she fought error of opinion, and ignorance, and false religious doctrines, and false government, and untenable medical theories, and practices, and so she will continue to the end of time.

We greet the graduating class and welcome its members to our ranks. If we notice the apparently advanced literary attainments of its members we do not wish to speak disparagingly of those which have preceded it, but to compliment it and the college upon the fact that those who to-day take up the profession, have already taken advantage of the opportunities now offered in the whole Northwest of an advanced education.

Thirty years ago the first rays of the higher education were just beginning to stream by the peaks of the Alleghaneys into the great valley of the Ohio and the Mississippi, but now the whole central continent is filled with institutions of learning, and education in its larger and more complete sense is offered on every hand, and at this University of Michigan, we are proud to say it, without money and without price.

When has a class entered the profession in a more propitious decade concerning the opportunities which are within its reach, with the microscope, the thermometer, the ophthalmoscope, the speculum, but recently adapted and handed to the busy, studious worker, with no controlling theories to warp its views and be a drag upon the wheels of its advancement?

We envy you your youth, your aspirations, and taking you by the hand may truly say, "how much more elder art thou than thy looks."

At the table, after a very admirably gotten up supper had received proper justice and given proper satisfaction, the following toasts were responded to:

University of Michigan:

Response by Regent Rynd—who stated that it was the ambition of the regents to make the University in all of its departments worthy of the support, confidence and sympathy of its alumni. Referring more particularly to the medical department he stated that in the changes which had been recently made no professional rights had been bartered away. Clouds had for a time hung over that department, but these, he as an alumnus and as a citizen of this proud State, was glad to say were clearing away. He had every assurance that the legislature would second the efforts of the regents to place this department in the van of the medical colleges of the country, by making the necessary appropriations for carrying out the plan which had been agreed upon to accomplish that end. The University hospital is to be improved so as to furnish first class clinical advantages. Two hundred and fifty four persons had been treated in this hospital during the past year; of these *forty* had been *successfully* operated on for cataract—a work of charity in itself demanding the admiration of humanity. The lecture course in the medical department would hereafter be extended to nine months. In this department the University of Michigan takes the lead and will have been seconded at next session by Harvard alone of all the medical schools of this country. Under the standard of preliminary requirements which was already in force, the class of the present year was of a superior order of excellence, and he felt confident that as the motives of the University authorities became better understood, the better class of men, not only of this State but also of other States, would rally to their support.

Our Alma Mater:

Response by Dr. J. C. Willson, of Flint. Nearly a quarter of a century ago he came from Canada a green boy, with little money and few friends, to pursue his medical studies at this, then young, institution. He regretted that since he had left her a graduate, this was his first return to his Mecca. Although his visits were thus few, he had, however, not forgotten his Alma Mater. He was proud of her and rejoiced with his fellow alumni in her great prosperity. Although, homœopathy, a legalized prostitution. had been forced upon her, he loved her still and considered it his duty to stand by her. He thought, moreover, that the ends justified the means and that the present arrangement would prove to be the most disastrous that could befal the false system. The only way to overcome error is to combat it with truth. As wickedness is most successfully met by good example, so is ignorance most surely dispelled by the light of science.

The doctor closed his remarks with the sentiment:

> The Faculty of Medicine and Surgery in the University of Michigan—may they always remain loyal to our Alma Mater, and never surrender their positions of honor and trust to their enemies, but fearlessly stand by their colors and continue to teach as they have hitherto done, the true science of medicine, adopting as their motto, "liberty to all and oppression to none."

The Medical Profession of Michigan:

Response by Dr. Brodie, of Detroit. The Doctor had attended the first commencement exercises of the Medical Department of the University, and had since that time watched with a jealous eye her interests. The profession of Michigan is largely composed of the graduates of the University, and it becomes them to stand by their Alma Mater, which they may do with pride, seeing that her graduates vie with those of the most renowned schools of this country. They should stand between her and her enemies, and not cowardly desert her in her hour of tribulation. He believed strongly in State education of physicians; it is as much the duty of the State to teach how disease may be cured as to teach how it may be prevented.

The Medical Press:

Response by Dr. Mulheron, of Detroit.

Ann Arbor—the Athens of the Northwest.

Response by Dr. W. F. Breakey, of Ann Arbor, who compared the Ann Arbor of a quarter of a century ago, when he first saw it, with the Ann Arbor of to-day, with its vast institution of learning, which is the pride of the State and an honor to American education. He was pleased to see the Alumni Association in such a flourishing condition; its formation had been long deliberated. He believed the Alumni had never failed in their allegiance to their Alma Mater.

The State Medical Society:

In the absence of Dr. Sager, who sent a letter regretting his inability to attend, Dr. E. S. Snow, of Dearborn, responded. The Doctor dwelt on the great necessity of frequent gatherings of medical men. He had seen nearly thirty years of country practice, and had in that time had met many country doctors, among whom he had found men of great natural ability and sterling manly worth; but with all this it did them good to return betimes to the seats of learning and to the annual gatherings of the profession, where they might meet and converse with men of culture. He paid a high compliment to the medical men of Michigan, and attributed their superiority largely to the influence which our noble State University exerts. He had sent students to this great institution, and he was proud of their achievements.

The Practitioner of To-day:

Response by Miss Vale—who interpreted the call for a response from her as a token that the women were welcomed as co workers in this noble profession. She gave her conception of what the requirements of the practitioner of to-day must be if he would achieve success. He must have breadth of culture, the scientific attainments of the man of science, the zeal of the divine and the tact of the lawyer.

Public Health:

Response by Prof. A. B. Palmer. After stating to what extent he had been instrumental in organizing the State Board of Health, and descanting on the great hopes he entertained of its usefulness, the Professor digressed to vindicate his position on the homœopathy question.

Our Latest Arrival—the Class of '77:

Response by J. E. Clark, of Norwich, Ontario. He was of the number who had well-nigh passed through the period of incubation, who had already chipped the shell and expected on the morrow to emerge full-fledged M. D.'s. This was the first class of graduates in the United States that had been subjected to the ordeal of a preliminary examination, and had the proud distinction of being the best average class graduated from their Alma Mater. He quoted from Scripture to show the estimation in which physicians were held in Bible days. Then, as now, their calling was in turn praised and lightly spoken of. In Ecclesiasties we find: "The skill of the physician shall lift up his head, and in the sight of great men the state shall be admired;" and this is offset by the passage in Kings, where we find, in referring to the end of the reign of King Asa, it says: "And Asa was troubled with a disease of the feet, and in his distress he sought, not God, but the physicians, and Asa slept with his fathers, and was buried in the temple of Jehosaphat" Quite a malignant joke at the *regular profession*, for we have every reason to believe that when Asa deserted the Great Physician he engaged a member of the regular profession, for, strange though it may appear, we do not find homœopathy alluded to *directly* in the whole sacred writings.

This ended the regular toasts, and the following volunteer sentiments were proposed:

The Ladies: Response by Prof. E. S. Dunster.

Specialties in Medicine: Response by Dr. C. Henri Leonard, of Detroit.

The Medical Profession of Canada: Response by Prof. D. Maclean.

American Medical Association: Response by Prof. Frothingham.

The following are the officers elected for the ensuing year:

President—J. C. Willson.
1st Vice-President—Wm. C. Fisher.
2d Vice-President—H. Williams.
3d Vice-President—Edward Twiss.
4th Vice-President—W. H. Rouse.
5th Vice-President—A. H. Vandervort.
Secretary—Conrad Georg.
Treasurer--A. B. Prescott.

J. J. M.

Obituary.

Died, at Ann Arbor, March 31st, DR. HENRY S. CHEEVER, late Professor of Materia Medica and Therapeutics, and of Physiology, in the University of Michigan, and of Physiology, in Long Island College Hospital. Aged 40 years.

Departed! the kind friend, the sympathetic physician, the profound scholar, the indefatigable student, the good man.

Although almost daily expecting to see the notice of his death in the public print, the announcement when it actually did come, came with a shock and fell like a pall over a large circle of warm friends and enthusiastic admirers. Few there are who knew Dr. Cheever in whom the above notice has not caused a pang, for none knew him but to honor and respect him, or who knowing him at all intimately, did not love him. There are many scattered abroad through this land whose relations to him were peculiarly intimate, whose privilege it had been to sit at his feet in their student days, and thus to feel the fond drawings of that magnetism which distinguished him; to such the news of his death will come as that of a brother's.

Dr. Cheever was born at Exeter, Otsego County, New York, August 8, 1837. When seven years of age he removed with his parents to Geneva, Kane County, Illinois, where he spent his boyhood days on a farm. In 1856 the family removed to Michigan, and in 1859 settled at Ann Arbor, which place was from that time to the time of his death, Dr. Cheever's home.

Having prepared himself for the University at Tecumseh, in this State, he entered the literary department, from which he graduated with a bachelor's degree in 1863. In the following year he finished a full course in the laboratory, having paid more than the usual attention to chemistry during his arts course, and graduated from the medical department in 1866, immediately after which he entered upon the active duties of the profession at Ann Arbor, and soon succeeded in building up a large and lucrative practice.

In 1867 he was appointed Demonstrator of Anatomy in the University, and in 1868 received the appointment of lecturer on Materia Medica and Therapeutics. In the following year, having given sufficient proof of his competency to fill the position he received a full professorship. In 1872 Physiology was added to his chair, and during the same year he was made Professor of Physiology at L. I. College Hospital.

It will be seen that his preferment was very rapid, and Dr. Cheever was not the man to allow anything he undertook to prove a failure, if close study and untiring industry could prevent it. It was under these accumulated labors that his health commenced to give away. On one occasion the writer reasoned with him to dissuade him from the overwork which was running him down, buthe refused to believe that anything but "a little dyspepsia" ailed him, and failed to take warning until the evidences of pulmonary phthisis were painfully manifest.

In the spring of 1873 he was granted a two years' leave of absence by the Regents, and sought the climate of Colorado. For a time his general health improved, but his lung complication was not appreciably benefited and feeling convinced that climato-therapeutics could do no more for him, he returned home at the expiration of the two years. During the session of 1875-6 he again undertook to lecture, but, after delivering but a part of his course, he found that he could hold out no longer and was compelled to give up. From that time he retired from all active duties and calmly and resignedly awaited his end. His knowledge of his disease deprived him of that false hope of recovery which deludes and buoys up the consumptive, and with heroic fortitude and Christian resignation, he watched the workings of the inevitable, abstaining from all medication, save a little of the purely palliative.

In the death of Dr. Cheever our profession has lost one who, had he been spared, would have been one of the few who stand out from among the rest as bright and shining lights. He was a marvel of application and perseverance in the pursuit of knowledge; but while his life afforded an illustration of what work can accomplish, his untimely death carries also a lesson which the student should not pass by unheeded, and that is that the amount of work undertaken should not be out of proportion to ones power of physical endurance; there is a limit, to pass which, is incompatible with the greatest good one may accomplish.

As a lecturer Dr. Cheever was not brilliant, in the ordinary acceptation of the term. He had none of those tricks of oratory under which is frequently hidden the speaker's ignorance of the subject which he essays to teach. He seldom enunciated a proposition which he was unable to verify from his own experience. He was an original worker, taking little for granted, and endeavoring, in so far as his time and opportunities would permit, to supplement the teachings of the books by experiments conducted by himself or under his own supervision. His graduation thesis on "Catalysis" was founded on his own experiments, and brought out points which had not previously been made, thus giving unusual promise of future distinction, even ere he had as yet entered the profession. Later on, he conducted a series of experiments for the purpose of demonstrating the influence of alcohol in modifying the temperature of the body. The experiments were very thorough and the deductions quite important from a therapeutic point of view. They were published in full in the *Michigan University Medical Journal* of November, 1870. His lecturers on Physiology were liberally illustrated by successful vivisections. The writer attended his first course of lectures on Materia Medica and Therapeutics, and well remembers the thoroughness with which he treated the subject, notwithstanding the fact that he had been called to fill the chair but a few weeks prior to the opening of the term.

Dr. Cheever was married in 1863, to Miss Sarah E. Bissell of Tecumseh, Mich., whom, with two children, he leaves to mourn his loss.

At a meeting of the faculty of the college of Medicine and Surgery held April 3, the following preamble and resolutions were unanimously adopted:

WHEREAS, God has taken by death our former associate in this faculty and graduate in the University, both in the departments of literature and the arts and in medicine, Dr. Henry S. Cheever;

Resolved, That in him the University of Michigan sustains the loss of a son of most ardent devotion and most able service—one whose name is enduringly written in filial works of sterling worth. In him learning leaves a bright and favorable promise for fruitful labor, and medicine finds the early interruption of labors already ranking high in honorable esteem. He brought to the uses of medical education a clear mind, a direct force and a tireless energy. The intensity of his purpose may be plainly read in the results of his life, and has been too surely attested in the sorrowful event of his death.

Resolved, That under the sorrow of this event we join with the medical *alumni* of the University, in placing the tribute of the tenderest and most grateful respect, and in asking the consolation that comes in trust of the divine approval, "Well done, good and faithful servant."

Resolved, That we tender to the family and relatives of the deceased our most profound sympathy in their great bereavement.

J J. M.

Bromhydric Acid and its Authorship.

This late addition to our materia medica has received numerous favorable notices in the medical press, and may now be regarded as a fixture in therapeutics and as fulfilling the predictions of its author concerning it. It is claimed for it that its effects on the nervous system are identical with those of bromide of potassium, and that it possesses the additional advantage of being readily combined with several agents, in connection with which its action is desirable, but with which the potassic bromide does not readily combine, as quinine, for instance. It was to secure an agent which would counteract the disagreeable effects of quinine that led its author to undertake the experiments which led to its production.

It is more particularly our object here, to correct an impression which has obtained concerning the authorship of this agent. Writers in some of the medical journals give Dr. J. Milner Fothergill, of the West London Hospital, the credit of its discovery. This, however is a mistake. Dr. Fothergill has abundantly tested the article and gives it his endorsement, but in his report of its use (*British Medical Journal*, July 8, 1876) he lays no claim to the honor of its discovery, but places that where it properly belongs, to Dr. D. W. C. Wade, of Holly, Michigan. The article was first given to the profession by Dr. Wade in the *Peninsular Journal of Medicine* of February, 1875. The doctor first prescribed it in May, 1874, which was undoubtedly the first time it had ever been ordered. Since that time he has prescribed several gallons of it with the most gratifying success in relieving the cerebral effects of quinine. In addition to this it is useful in other directions, as the article by Dr. Wade above referred to, suggests: "Effects may be expected from the acid that are not obtained from the bromides. For instance it appears to affect the stomach similarly to the other mineral acids—increasing the appetite, aiding digestion, and acting as a general tonic —therefore having a wide range of applicability. Bromine is known to be a powerful antiseptic, and its hydrogen acid, combined with quinia, cannot be too much extolled in septicæmia. The acid is a powerful refrigerant and sedative, administered with syrup in fevers, with which, among other combinations, may be made the bromide of mercury as an alterative. In fact the acid alone is a powerful alterative. It will be seen that bromhydric acid, with these therapeutic properties, ought to establish for itself a position in the materia medica that will entitle it to recognition by the whole profession; yet, to-day, it has never been used, to my knowledge, by any physician but myself."

The following is the formula which Dr. Wade employs for the preparation of the article:

℞ Bromide of potassium	120 grs.
Crystallized tartaric acid	153 grs.
Water	one fluid ounce.

Mix and agitate until the potassium salt and the acid are dissolved and the precipitation commenced. Set aside in cold water twelve hours and decant. One part of the bitartrate of potassium that forms is soluble in one hundred and eighty parts of water, so that the result is not strictly pure acid, but for therapeutical purposes it is sufficiently so. In this formula each fluid dram contains ten grains of bromine. The usual dose is a half dram, although there is no reason why the amount might not be safely much exceeded. J. J. M.

To Correspondents.

It becomes necessary for us to remind our correspondents, and more particularly, perhaps, those secretaries of societies who favor us with society proceedings, that in medical journalism, as elsewhere, brevity is the soul of wit. As much thought in the fewest possible words, is the demand of the times. Few correspondents relish having their communications tampered with, and most would prefer to do their own boiling down, to having us subject their articles to that culinary process; and if we interpret correctly our own feelings on the subject, we should much prefer to have them conduct the operation. What we want, and what our readers want, are facts. *Verbum sat sapienti.*

Memoranda.

The State of Pennsylvania has given another one hundred thousand dollars to the Jefferson Medical College.

The annual death rate for the city of Lansing, Mich., per 1,000 was, for January, 1877, 10.47; February, 1877, 8.64; March, 10.35.

A solution of nitrate of silver in nitro-muriatic acid, ʒi to ℥i, and applied with a fine brush, is recommended as an efficient application for the destruction of warts.

The twenty-eighth annual session of the American Medical Association will be held at Chicago, Ill., on Tuesday, June 5th, 1877, in Farwell Hall, at 11 A. M.

A new edition of the United States Dispensatory is announced. Dr. Geo. B. Wood has revised part first, and Dr. H. C. Wood the remainder. aided by Prof. Bridges.

A Providence (R. I.) hospital has been sued for malpractice in the treatment of a finger after amputation. A verdict against it has been rendered to the extent of $10,000.

William Wood, the widely-known publisher of medical books, died April 9th. For nearly fifty years he was actively associated with the interests of American medical literature.

In Abyssinia the raw and still quivering cow's flesh is looked upon as the greatest delicacy. As a consequence, almost every one carries a tape-worm factory in his intestinal canal.

Dr. John E. Lockridge, of Indianapolis, recommends the following in doses of a dessert spoonful in water every hour as next to an infallible cure in functional headache: Potas. Bromidi ℥ij; Tr. Aconite Rad., ʒj; Aq. Dest. et Syr. Simp. aa ℥ij.

The Michigan State Medical Society will begin its eleventh annual meeting at Battle Creek, Wednesday, May 9th, at 10 A. M. Papers, reports and discussions of unusual interest are expected.

It is believed that of the human race sixty millions drink coffee; five hundred millions, tea; four hundred millions use opium; five hundred millions, alcohol, and seven hundred millions, tobacco.

The Rev. Dr. Muhlenberg, the founder of St. Luke's Hospital, New York City, died April 8th, aged 81. Owing to his rare talents and faithfulness, every enterprise in which he engaged was a success.

The *Medical Eclectic* of March contains a long biographical sketch, with portrait, of Dr. J. Marian Sims. Next in turn should come the *Medical Investigator*, the leading homœopathic journal of the Northwest.

Dr. C. Henri Leonard, of this city, has received a cash order for 500 copies of his Vest-pocket Anatomist, from Balliere, Tindall & Cox, of King William st., Strand, London, England, who have also purchased the exclusive right of sale of the admirable compendium in Great Britain and Ireland.

G. P. Putnam's Sons announce a new work, by Dr. Wm. A. Hammond. It will discuss the "Influence of the Maternal Mind Over the Offspring During Lactation and Pregnancy." Having shown what this influence is, and the mechanism of its operations, the Doctor will devote a section to the consideration of many points relating to ante-natal education.

The same publishers state that a new work by Dr. Mary Putnam Jacobi is nearly ready. The title is "Rest for Women During the Period of Menstruation." It will contain 50 illustrations of sphygmographic traces, showing the variations in arterial tension, and tables giving the results of 250 urea analyses of urine.

"Thoroughly annoint the patient twice daily with sulphur ointment. Give five to ten grains sulphur in a little jam three times a day. Sufficient sulphur must be burnt (on a hot shovel) to fill the room with sulphurous fumes, which, of course, are thoroughly inhaled by the patient," is, upon the authority of Mr. Pigeon, in *London Lancet*, very successful treatment for scarlatina.

A meeting of the Provincial Association of American Medical Colleges will be held at the Palmer House, Chicago, on Saturday, June 2d, 1877, at 10 o'clock A. M. All colleges represented at the meeting of the Association held in June, 1876, are invited to send delegates to the ensuing meeting, and all chartered medical colleges in the United States recognized as "regular" by the colleges already represented in this Association, are also invited to send delegates from their Faculties to the said meeting. J. B. BIDDLE, M. D., *President.*

Dr. Preismann has observed that, for about six hours after coitus, there is a peculiar odor in the breath. Both sexes, at all ages, present this phenomena. In some persons it was noticeable at a distance of six feet. So positive is the doctor of the reliability of his observations that, if it be absent during the above length of time in one charged with rape, he positively affirms the innocence of the accused. The odor is, probably, from a peculiar secretiо́n of the buccal glands.—(*Med. and Surg. Reporter*).

Dr. Farr has made some curious calculations as to the yearly value of a human being, *as a producer*, at various ages. His estimates are based upon the agricultural classes of Norfolk, England. The prospective labor of an infant at birth is worth twelve and one-half dollars; a child aged five years is worth one hundred and thirty dollars; aged ten, two hundred and seventy dollars. The maximum value is attained at twenty-five, and is equal to six hundred and fifteen dollars per year. At fifty, it is reduced to three hundred and fifty-five dollars, and so on to seventy, when it is only two dollars and one half per year. At eighty, the value is one hundred and two dollars less than nothing.

Meterological Report of Detroit for March, 1877.

BY C. HENRI LEONARD, M. D., OBSERVER FOR STATE BOARD OF HEALTH.

BAROMETER.—Highest, 30.386; lowest, 29.103; range, 1.283; daily mean, 29.997.

THERMOMETER.—Highest, 50 (this was on the 31st); lowest —2 (this was on the 17th); range, 52; mean, 26.7. The lowest temperature for our preceding Marches have been—7 for that of '72; 1, for '73; 12, for '74; 0, for '75; 7, for '76. It is the lowest mean temperature by from 2 to 8 degrees for any March since 1872; hence, an unusually cold month.

WINDS.—Prevailing direction has been N. E. (the prevailing direction for the preceding Marches has been N. W.) The maximum velocity was 28 miles per hour. Total number of miles traveled, 5,867—less by from 400 to 2,100 miles of previous Marches. "Calms" were observed on the 9 P. M., observations of the 17th, 19th and 27th; and at the morning observations of the 20th and 30th. On the whole it has been a "calm" month.

CLOUDS.—No. of clear days, 6; cloudy, 12; fair, 13; rain or snow, 23. On the 27th, 28th and 29th, there were no clouds visible at any of the observations. A very unusual occurrence for three cloudless days to be together. *It has been an unusually stormy* month. In '72 we had 10 stormy days; in '73, 15; in '74, 13; in 75, 18; in '76, 20.

RAINFALL.—Total precipitation, 5.43 inches. Greatest daily fall, 1.13 inches (this on the 12th). This has been a *very wet* month, almost double the usual amount of rain-fall. The total precipitation for '72 was 1.22 inches; for '73, 1.79; for '74, 1.55; for '75, 3.00; for '76, 5.50 inches.

MOISTURE.—Maximum amount present (as well as day of greatest daily average) on the 2d; there were then present 3.25 grains to each cubic foot of air, or daily average of 2.80 grains. This was not the day of highest temperature, or highest "relative humidity." The day of highest "relative humidity" was the 12th; the "absolute humidity" this date was 2 grains to each cubic foot of air. On the 17th, when the "relative" humidity was 60 per cent. the "absolute" was so nearly absent as to be incomputable. *Vice versa* on the 29th, when the "relative" went but 20 per cent. (the lowest recorded, I believe, in the past year), at the 2 P. M. observation, the "absolute" was 1.51 grains to each cubic foot of air, showing conclusively the truthfulness of my statements before made "that the "relative" and "absolute" humidity are *entirely* independent of each other." It may seem that my many reiterations of these statements is getting rather "stale;" but as I have been pretty warmly opposed in them, when pronouncing them before a medical society on two different occasions, I think it no more than right that I should give these many prominent examples that go to support my assertions. In *no case* has the highest, or lowest "absolute" humidity corresponded with the highest or lowest "relative humidity."

OZONE.—The day of greatest amount, the 21st; the paper was discolored to 2 of the scale at both the morning and afternoon observations. The day following, and the day preceding there had been only traces. It is a noteworthy fact that this great developement of ozone in the atmosphere followed (and was the direct result of) the singular electrical storm so graphically described further on by Theo. V. Van Heusen, of the U. S. Signal Service.

FROSTS occurred on the 1st and 20 insts.

REMARKS.—At 7.30 P. M., of the night of the 9th inst., there was observed an aurora, the first observed at the station since the brilliant one of July, 1876. It appeared in the northwestern sky and consisted of an arch of light having an azimuth of 30 degrees and an altitude of 20. It appeared brightest at 9 o'clock and disappeared, by a gradual fading away, by 11.30 P. M. The arch was stationary and there was a complete absence of the luminous, slender, darting beams common to auroras observed in these latitudes. The color of the aurora varied, at times, from a pale, greenish blue to a reddish yellow. This aurora was generally observed throughout the northern portion of the United States.

On the 20th inst., at 6.10 P. M., there occurred a storm which, for the remarkable features connected with it, is unparalleled in the records of this station. During its continuance heavy rain, hail, snow and sleet followed each other in rapid succession, while the electrical display was most brilliant. The cause of this storm is accounted for by the fact that for some ten days preceding the storm there had been a succession of mild polar waves moving down from the N. W. and during the same period a warm current, highly charged with atmospheric electricity, moving from the S. W. These two currents, one of cold, dense dry air, the other of warm, light air and containing a large amount of vapor met somewhere in the neighborhood near the S. W. portion of Minnesota. The warm air being lighter ascended to the upper atmosphere, carrying with it the vast amount of electricity it contained. The cooler air clung to the surface of the earth and this double current moved rapidly eastward, continuing on its course to the Atlantic seaboard, where its greatest violence was felt.

The display of cautionary storm signals for the season of 1877-8 has commenced.

Detroit Medical Journal.

NEW SERIES. VOL. I. | JUNE, 1877. | No. 6.

Original Communications.

Diabetes Mellitus—Report of Two Cases—Recovery—Physiological Effects of Sulphides — Trommer's Test and the Sulphides.

BY T. CURTIS SMITH, M. D., MIDDLEPORT, OHIO.

Read before the Ohio Valley Medical Association May 3d, at Ashland, Ky., and ordered to be published.

[In the treatment of the following cases, in the investigation and experiments and in the discovery of the interference of the sulphides with Trommer's test, my friend and partner, Dr. E. C. Fisher, deserves as much credit, if any attaches, as myself.]

CASE I. F. S., æt. 20, nervo-bilious temperament, farmer, of general good health, excellent habits and industrious, on his maternal side inherits phthisis distantly. Saw him in September, 1876, when I found him laboring under the effects of malarial fever, then very prevalent in his vicinity. From this he soon recovered, but was left weak and continued for some weeks unable to exert himself to any considerable extent. Tonics and continued rest failed to restore his strength He stated at my first visit that he was making "plenty of water." This was in reply to inquiry. His weakness continuing and rather increasing, Dr. Fisher was called October 25th, in my absence, to see him. He was found with considerable general debility, general malaise, nocturnal fever, some lumbar and head-pains, with considerable renal derangement; urine reported quite free. On my return I called to see him November 5th; found him with all the above symptoms except fever, but also with considerable cough and hoarseness, well defined symptoms of bronchitis and dullness over the apices of both lungs; had a peculiar cachectic appearance, pulse 90, skin felt normal, temperature 99; had severe night sweats, loss of appetite. On account of his slight hereditary tendency to phthisis, I was disposed to anticipate trouble of this kind and doubted his recovery; thought his increased loss of flesh due to this and nothing else. No mention had been made to me of his excessive flow of urine at this visit, nor at any time except my first visit, when he said that he made "plenty of water—more than in health." After two weeks of treatment for his bronchitis it disappeared, as did also his nocturnal ephydrosis. The appetite then became insatiable, but still no gain in his strength; a continued loss of flesh and strength noticeable, though not rapid. As his lungs had now entirely cleared up, it seemed to me he ought to become stronger, as no evidence had been elicited after pretty careful examination to account for his continued weakness. This carried the case up to November 17th. His mother at this visit asked me if her son had ever told me of his "making so much water." I told her no. She stated that he made about twice as much as he ought, as she thought. On conferring with Dr. Fisher, we concluded his trouble might very possibly be diabetes mellitus. Accordingly a specimen of his urine was obtained and analyzed—first by Dr. F., then by myself—when we found undoubted evidence of sugar, in considerable quantity, in his water by means of Trommer's, Bœttger's and Moore's tests, and the fermentation test. A careful measurement of his water showed that he was voiding nine pints per 24 hours, which was far beyond all expectations from previous representations. It was further elicited that he had been afflicted with an excessive flow of urine most all of the previous summer, during which time he had felt listless and indisposed to work, always becoming tired very soon. His weight was now 117 pounds, average weight 135 pounds. Having the diagnosis now clearly made out, it was at once determined to put him on the sulphide of calcium and Pavy's anti-diabetic diet.

This decision was made in view of the very fatal results from this disease, under any course of treatment that had ever been adopted, except the report of a very few cases of recovery under the use of this sulphide. (See *Medical and Surgical Reporter*, vol. XXXIV, page 97, 1876, and same journal, vol. XXXV, pages 398 to 400.) These cases were reported by Drs Scattlif, of England, and C. C. Cranmer, of Saratoga, N. Y. These cases, coupled with a commendable report of the value of the sulphide of calcium in this disease, by that very excellent authority, Sidney Ringer, referred to in the *Reporter*, but never seen by me, and a brief note of its value by an Italian physician, were sufficient to cause me to come to this decision promptly, though in doubt of its value. I therefore placed the patient on sulphide of calcium grs. ii. every four hours, and Pavy's anti-diabetic diet, which is as follows: "Butcher's meat of all kinds, except liver, ham bacon or other smoked, salted, dried or cured meats, poultry, game, shell-fish and fish of all kinds, fresh, salted or cured. Animal soups, broths, beef tea, not thickened with flour. The almond, bran or gluten substitute for ordinary bread. Eggs dressed in any way, cheese, cream cheese, butter, cream, greens, spinach, turnip tops, turnips*, French beans*, brussels sprouts*, cauli-flower*, broccole*, cabbage*, asparagus*, seakale*, vegetable marrow*, mushrooms, water cress, mustard and cress, cucumbers, lettuce, endive, raddishes, celery, vinegar, pickles, jelly, flavored but not sweetened, savory jelly, blancmange, made with cream and not milk, custard, without sugar, nuts of all descriptions, except chestnuts, olives." (Those marked with an asterisk (*) may only be eaten in moderate quantity, and should be boiled in a large quantity of water.) The patient may drink "tea, coffee, cocoa from nibs, dry sherry, claret, burgundy hock, brandy and spirits, not sweetened, soda water and bitter ale, in moderate quantity; may drink milk sparingly."

Pavy then states what must not be eaten or drunk, but as the above includes all of what may be used, the other articles must be inferred. (See Pavy on "Food and Dietetics," Amer. Ed., page 515.) This treatment was instituted on the 21st day of November, except that toast was allowed until the anti-diabetic flour was secured, which was received and its use commenced on the 7th of December.

An immediate diminution in the flow of the urine was observable, and a diminished quantity of sugar in that discharged, and an immediate increase in his weight was apparent. From 117 pounds, which was his weight November 21st, he gained one pound a day for the first fifteen days, his weight being 133 pounds in that time.

Sugar was detected in his urine in progressively decreasing quantities until December 14th, when it contained a trace. A mere trace persisted for two weeks longer. The quantity of urine ran down from nine pints at the commencement to one and a-half and two pints by December 15th, and never permanently increased above this afterwards. The specific gravity of the urine ranged at first from 1026 to 1036, generally standing 1030 to 1032. After a month's treatment it came down to 1020 as an average. Sometimes it was above this, sometimes below.

The tests for sugar in this case were made by the yeast, Trommer's, Moore's liquor potassa test, Bœttger's Bismuth, carb. soda and nitric acid test, Robert's comparative fermentation test, and the alcohol potash test. (See Bowman's chemistry, pp. 75–9, 5th Amer. from 4th Lond. Ed.) All these tests proved the existence of sugar unmistakably, and proved to us conclusively by the last of December or early in January that the urine no longer contained sugar. His diet remained unchanged until Feb. 15th, 1877, when a gradual resumption of an amylaceous diet was permitted and he was put back on the sulphide of calcium, which had been dropped off about a month previous. His weight had gone up to 137 and back to 134 pounds on the diet above given. Soon after resuming a general mixed diet his weight ran up to 140 pounds, being heavier than he had ever weighed before at any time. There has been no return of diabetes to this date, now May 1st, 1877. This was the first case of diabetes that had occurred in my practice of fifteen years' duration, and of course I was happy, as was also Dr. Fisher, to observe such a happy and unexpected result by a plan of treatment so easy of execution.

Case II. Mr. M., æt. 52, came to my office Jan. 2, 1877, to be treated for urinary trouble. He is of a nervo-sanguinous temperament, of general good health for many years, until within the last two; height 5 feet 8 inches, former weight 165–8 pounds, weight now 140 pounds, habits semi-sedentary, very temperate and regular. He stated that he was then and had been for two years troubled with a morbid flow of urine which was very annoying and troublesome, and that it is now and had been causing loss of weight and strength. The disparity showed a loss of about 25 to 28 pounds of flesh. He seemed still vigorous but considerably broken down from his former self. He, upon measurement, found that he was making four and a half quarts of urine in 24 hours, sp. gr. 1032. Trommer's test showed a tolerably heavy deposit of dark brown ochre. Roberts' test showed that there was twelve grains of sugar to the ounce. All the tests before named proved unmistakably the presence of sugar in abundance. He was put upon the sulphide of calcium grs. iv., three to four times a day, and a mixed diet allowed for the first week, at the end of which time the urine contained eight grains of sugar to the ounce, and the urine was reduced to a trifle over two quarts. Pavy's anti-diabetic diet was now enjoined and strictly followed, and when a week later he brought a specimen of his urine it showed a sp. gr. of 1020 and not a trace of sugar. Though he had not weighed himself it was evident that he was gaining. But a month after commencing treatment he weighed 151 pounds. Soon after this a mixed diet was allowed but there was no return of the disease, nor has there been any to this date.

The pathology of diabetes is not even now sufficiently well understood to lay it down with a degree of distinctness that can be considered clear and indisputable. Many theories have been offered in its explanation, and the very fact that such is the case, is conclusive proof that as yet its true pathology is not known.

There are five prominent theories to account for diabetes, each of which have now, or have had warm supporters. Bouchardat's notion was, that the "amylaceous elements of our food are converted into sugar by several animal products, as the saliva, the pancreatic and gastric fluids, rendered alkaline (having lost the property of dissolving flesh) continue capable of converting starch into glucose." He thinks the sugar of diabetes is made within the system entirely from farinaceous articles of diet, and that diabetic persons digest these differently from other and healthy persons.

2. The discovery by Claude Bernard of the sugar making function of the liver led many to adopt the theory that diabetes results from "over activity" of this function of the liver, which was supposed to be caused by undue stimulation of the liver by the great sympathetic system of nerves.

3. "A general and irritable state of the nervous system being a frequent, if not a constant symptom of diabetes, and as Claude Bernard records that irritation of the ganglionic centre in the medulla oblongata exercises a special influence over the functions and actions of the liver, and, moreover, as Flourens has shown that irritation of the floor of the fourth ventricle led to the presence of sugar in the urine of animals operated on, it has been conceived that the nervous centres are remotely the cause of this singular disturbance in the functions of the organism."

4. It has been held that a defective respiratory process by not consuming the sugar in the lungs might account for the accumulation of the sugar in the blood, and its consequent appearance in the urine. This theory grew out of the fact that when respiration was greatly impeded or imperfectly performed from any cause, as asthma, phthisis, pleurisy, pneumonia, hysteria, or the inhalation of ether or chloroform, that sugar was often found in the urine.

5. "The importance, the absolute necessity for the pre-

sence of certain alkaline salts in the blood, without which the further metamorphosis of many excrementitious substances would be incomplete, is well known. M. Miahl has proved by analysis of the blood of diabetic patients, that it is deficient in these alkaline salts; he states that the farina of our food is converted with equal activity into sugar both in health and in diabetes. But in health the sugar is decomposed or burnt off by the presence of these alkaline salts by the agency of the oxygen in the lungs; but in diabetes the decomposition does not take place, owing to the deficiency of these important constituents, and the sugar undergoing no further metamorphosis, passes off as such through the kidneys." (*Basham, Med. and Surg. Reporter*, vol. XXV.) The latter is to my mind much the more plausible theory, but we must get back of all this, if possible, in order to account for the deficient alkalinity of the blood, and in doing so we are driven at once to the nervous system, the great splanchnic system that presides over nutrition and assimilation from its first to its most minute and intricate stage, or from the time food enters the mouth until it is developed into tissue. In diabetes it may be, and probably is interfered with in its functions by some unknown influence just at the point where the alkalinity of the blood should commence, and still permits the complete formation of sugar from farinaceous diet. In other words my idea of the cause of diabetes is, that the process of assimilation is interfered with just at the point where amylaceous articles of diet are converted into sugar, and for want of sufficient nerve tone to produce the proper alkalinity of the blood necessary to oxidize the sugar, it is permitted to pass from the system unassimilated, through the renal organs. There is not in my opinion too much sugar manufactured within the system, but an inability to appropriate what is manufactured, be its quantity ever so small. Hence even on a strictly animal diet, the liver still continuing to manufacture sugar, the system eliminates it, small though the quantity may be, and still continues to grow weaker for want of the full process of assimilation, which is lost at the point where glucose is manufactured. Does sulphide of calcium establish the lost balance of nerve power and thus effect a cure?

Let me add here in closing this division of my subject, that if this disease has its origin in a structural lesion of the floor of the fourth ventricle, as is claimed by some authorities, it is not likely that any remedy will prove universally satisfactory in its treatment, especially when the disease is well advanced in its course. Yet even under such conditions, (granting this to be the primal origin of diabetes,) I would expect with the sulphides and proper diet to very greatly prolong the life, and add infinitely to the comfort of the patient. Time and much experience must confirm or disprove the power of the sulphides in diabetes melitus. Two cases do not prove the universal power of the remedy, but their weight is worthy of a moment's thought. Especially is this so in relation to a disease that is almost universally considered irremediable.

MIDDLEPORT, O., May 1, 1877.

TROMMER'S TEST AND THE SULPHIDES OF CALCIUM, SODIUM, AND POTASSIUM.

EXPERIMENTS BY MYSELF AND DR. E. C. FISHER.

During the past winter, while treating a case of Diabetes Mellitus with the Sulphide of Calcium, we found that Trommer's test gave what we thought were decided indications of sugar in the urine, while the yeast test, Bœttger's test, the alcohol potash test, Moore's test with liquor potassa, and Roberts' comparative yeast test, all failed to show the least amount of sugar in the urine. This led us to suspect that Trommer's test was interfered with, in some way, by the Sulphides that had been administered. We therefore prepared some grape sugar and added it to the healthy urine when we found Trommer's test to operate perfectly, showing that the fault was not with the test liquids. We then each carefully tested our own urine by Trommer's test, finding a complete absence of any sugar in the urine of either one, as the potash entirely failed to reduce the copper. We then each of us took four to five grain doses of the Sulphide of Calcium. In Dr. Fisher's case he found the same evidence of sugar in the urine that we had been getting in the diabetic subject for the ten days past, viz.: the reduction of the copper to the suboxide with the characteristic light ochre deposit and yellow supernatent liquid. In 4½ hours the same evidence was perfect in my own case, and a free yellow ochre deposit in the urine was present under Tromer's test. Here, then, was a discovery of interference with Trommer's test not heretofore known, as far as we had ever learned, and one certainly worthy of note.

This effect of the Sulphide of Calcium in reducing the copper to the Suboxide we repeated many times over in our own cases, and at different times. We likewise demonstrated this effect on other persons, so we were fully satisfied that we were not mistaken. We were further satisfied that any physician or chemist, not fully informed on this point, could be made to believe that a certain specimen of urine was diabetic, when in fact the patient had only ingested the Sulphide of Calcium. Coming to this conclusion, a specimen of urine from our diabetic patient, whose urine at the time contained but the merest trace of sugar, and a specimen of urine that from frequent tests was known to be void of sugar, but from a subject who was ingesting the Sulphide of Calcium, was taken to my friend, Dr. P. H. Clarke, with the request that he analyze both of them for sugar, as coming from diabetic patients. The results of these analyses Dr. Clarke kindly gave me in writing, as follows:

MIDDLEPORT, O., Jan. 1, 1877.

DR. T. CURTIS SMITH, *Dear Sir:*—"In accordance with your request I have subjected the specimens of urine which you handed me to tests, with the results appended.

Specimen F.—(This was the non-diabetic urine), under Trommer's test yielded promptly and abundantly, the orange-red precipitate which characterizes the results following the use of this test in the presence of sugar, but when put under Horseley's Chromate of Potassa test there was not the slightest evidence of the presence of sugar.

Specimen S—(This was from the diabetic subject in which a trace of sugar still existed), gave indications of the presence of sugar under Trommer's test, and Horseley's test, though far less strikingly under the former than did specimen F. [The diabetic patient was still taking the Calcium Sulphide.] When Dr. Clarke made the above announcement to me as the result of these analyses, I requested him to test a specimen of his own urine with Trommer's test, and then to take a few small doses of the Calcium Sulphide and test again. This he kindly did, and in a note handed to me a little later, he makes the following statement: "As you requested, also, I examined a specimen of my own urine, under ordinary conditions, with Trommer's test, and found nothing to indicate the presence of sugar. It proved otherwise to be normal. I then took ten grains of Calcium Sulphide in divided doses of three and one-third grains each, and applied Trommer's test to a portion of my urine again, with the result of finding a heavy orange-red precipitate. I applied Horseley's test, and secured no changes that would indicate the presence of sugar." Respectfully, etc.,

P. H. CLARKE, M. D.

As Dr. Clarke is abundantly qualified to judge of these tests, his evidence proves that our idea, that one might be deceived in Trommer's test by the presence of the Sulphides was proven to be correct, the Dr. not knowing beforehand the change caused by the Sulphide. Careful observation, however, will lead one to detect the difference in Trommer's test in presence of sugar and that of the Sulphide of Calcium. In adding the copper and potash solutions to urine containing sugar in proper proportions, it makes a clear indigo blue solution, while in the presence of the Calcium Sulphide, it makes the indigo blue color solution, but there is a cloudy solution with flocculi in it. The two solutions will, when heated at the top first, slowly ring down from the top of the solution towards the bottom, or gradually become yellow from the top toward the bottom progressively; in this respect, being just alike, and the floating flocculi will have a very similar appearance. But if sugar is present the fluid will generally soon turn of the dark ochre color under continued boiling, or on standing while in the presence of the sulphide of calcium the continued boiling on standing does not change the color. Again, the deposits differ, to some extent, on standing for a time; that of the real sugar test is granular and more solidly settled, while that from the Sulphide is more gelatinous, is not granular, and does not pack down as tightly as the former. The supernatent fluid in the presence of sugar is browner, or a darker brown, than the other, which is always yellow or orange-colored, often having a greenish tint. Yet, with all these nice little differences, it requires close observation to distinguish the two, and, withal, some practice. There can be no doubt that the presence of the sulphides in the urine reduces the copper to the suboxide, which is, and has always been, the secret of Trommer's test in detecting sugar.

Another easy point of distinction is to use Tromer's test by boiling the test liquids first, and then add the urine, drop by drop. In the presence of sugar, this acts at once and admirably, by giving the ochre deposit; but, in the presence of the sulphides by this method, the copper is not in the least reduced, and the ochre deposit fails to appear as it does when sugar is in the urine. The sulphides of sodium and potassium, in the same manner, seem to reduce the copper, with Trommer's test, when they are present in the urine; the only difference noticeable being that, with the copper and potassa solutions, they make perfectly clear (or nearly) indigo blue solutions, the same as in the presence of sugar; but, on boiling, they fail to ring down from the top as readily, and especially when the sulphide of Potassium has been ingested In all other respects these act, under Trommer's test, the same as does the sulphide of calcium specimens.

I have spoken all the time, so far, as though these sulphides passed through the kidneys as sulphides. Such is not, and could not, in the nature of the compounds, be the case; for these sulphides are very feebly held together, and a very slight chemical action is sufficient to change them to other compounds. Hence, after they are ingested they are very quickly changed into other compounds in the stomach, and from there absorbed; while—apparently, at least—sulphuretted hydrogen is set free.

The great query to us has been, how could such a compound produce such effects upon the urinary and other organs as it is known to do? For it has been clinically demonstrated that it acts powerfully and rapidly in the relief of some acute and chronic skin diseases, and hence must, in some way, affect the nutrition and secretion of the integument. But, still further, it must act on the sugar producing organs, or change that condition of the nervous system that permits its excessive formation, or causes its rapid destruction, as the case may be, when diabetes is present; for, of all remedies yet discovered for this disease, the sulphides, so far, *seem to be* the most effectual. How or in what manner these changes are effected it is not here attempted to explain. But to return: The sulphides, as sulphides, are not excreted by the kidneys; neither do the sulphides, added to normal urine, reduce the copper in the solution to the suboxide. The resulting flocculi in the instances above named, where Trommer's test was used after the ingestion of the sulphides, seemed to be the phosphates, chiefly the phosphate of lime; as, under chemical tests, with these deposits, nothing but the phosphates were detected in them.

The mystery, still unexplained, is, how is it, or what principle is it in the urine, after the ingestion of the sulphides, that reduces the copper, in the presence of the caustic potassa solution and urine, to the suboxide of copper? Heretofore nothing but grape sugar was known to reduce the copper in this manner, and this has been the great principle and secret on which Trommer's test, so justly celebrated for its delicacy and accuracy, has rested, unchallenged, for many years. It is true that some other constituents of the urine may interfere with Trommer's test; but not in the same manner as do the sulphides after being ingested.

PHYSIOLOGICAL ACTION OF THE SULPHIDES OF CALCIUM, SODIUM, AND POTASSIUM.

Having, within the last few months, frequent occasion to use remedies for the purpose of diminishing the flow of urine, where the quantity discharged was very excessive and morbid, from well known diseases, where its excretion is often enormous, the sulphide of calcium was resorted to, with what we considered remarkably good success. This and other reasons led us to take a few doses of it, which further led to the observation that it seemed to diminish the normal flow of urine in the healthy person. More especially was this noticed and spoken of, by my friend Dr. E. C. Fisher. We therefore agreed to institute a series of experiments to ascertain exactly, if possible, whether our suppositions were correct as to the actions of the sulphides. We knew thoroughly well from clinical observations that the sulphide of calcium had in no instance, for us, failed to diminish a morbid flow of urine.

In my own case I commenced the experiment by carefully measuring all the urine passed each twenty-four hours for three days. The diet, clothing, manner of living etc. being in every particular unchanged from my usual habits of daily life. My weight was normal, 135 pounds. State of health good, temperature of air cold, ranging from 16° above to 16° below zero, F.

On the first day the urine excreted was 32¾ ounces.
" " second " " " " 28¾ "
" " third " " " " 32¼ "

Total amount excreted in the three days 93¾ ounces.

Being an average of 31¼ ounces per day.

I then commenced to ingest the sulphide of calcium at the rate of four grains every four hours, taking five doses during the waking hours, not taking any after going to bed, until arising in the morning. After taking it for one day I commenced to measure the quantity excreted, which resulted as follows:

First day under the sulphide of calcium, urine excreted 26½ oz.
Second " " " " " " 27½ oz.
Third " " " " " " 17½ oz.

Total amount for the three days . . . 71½ oz.

Being an average of 23⅚ ounces per day, or an average reduction of a little over 7 ounces per day. After twelve days of interim, I began, in precisely the same manner the use of the sulphide of sodium, resulting as follows:

First day under sulphide of sodium, urine excreted,	27	ounces.
Second " " " " " "	20½	"
Third " " " " " "	20½	"
Total amount for the three days................	68	"

Being an average of 22⅔ ounces per day, and an average diminution of $8\frac{7}{12}$ ounces per day.

Again, after an interval of twelve days, I, in the same manner commenced the ingestion of the sulphide of potassium with the following result:

First day, under sulphide potassium, urine excreted,	18½	ounces
Second " " " " " "	20	"
Third " " " " " "	19½	"
Total amount for the three days.................	58	"

Being an average of 19⅓ ounces per day; an average reduction of nearly 12 ounces per day.

In following the practice of medicine there is necessarily in winter more or less irregularity of exposure to cold or wet weather. During the days, when the urine was measured without the ingestion of the sulphides, the exposure was less to cold air, by far, than it was during the ingestion of the calcium sulphide, and still far less than during the ingestion of the sodium sulphide. This difference of exposure should normally increase the discharge of urine, if these agents have no influence in causing the diminution, which is above noted. During the ingestion of the potassium sulphide the out-door exposure was about the same as when the urine was measured on the three days without either of these agents, and the diminished excretion under the last salt used is greater than under either one of the other sulphides.

The specific gravity of the urine normally excreted was usually 1028. That under the sulphides ranged from 1028 to 1032.

Dr. E. C. Fisher gives me the normal average of water he passed for three days as fifty ounces per day. Sp. gr. 1020; his body weight, 205 pounds. In his case, as in my own, the daily diet and mode of living was not in any way changed from the usual. After ingesting the sulphide of calcium for a day (24 hours), he commenced to measure the urine, which resulted as follows:

	Ounces.
First day under sulphide calcium, urine excreted	48
Second day	54*
Third day	33¼
Total amount for the three days	135¼

An average of within a fraction of 44 ounces per day. An average reduction of 6 ounces per day.

The reduction here was materially interfered with by exposure to cold during the night of the first day.

After awaiting the total disappearance of all trace of the agent in the urine, or any of its effects, the Doctor, as with Calcium S., commenced the use of the sulphides of sodium, with the following result:

	Ounces.
First day under sulphide of sodium, urine excreted	35
Second day	40
Third day	41
Total amount of urine for the three days	116

An average of 38⅔ ounces per day. An average reduction of 11¼ ounces per day.

Again awaiting two weeks for the complete disappearance of the effects of the last agent above named, the sulphide of potassium was taken up in the same manner, with the following result:

	Ounces.
First day under potassium sulphide, urine excreted	32
Second day	22¾
Third day	24½
Total amount of urine frr the three days	79¼

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*Exposed several hours to cold, damp air, standing mostly on ice.

An average of 26½ ounces per day (nearly). An average reduction of $23\frac{7}{12}$ ounces per day.

The specific gravity ranged 1020, 1028 and 1030, respectively, under the S. Calcium, S. Sodium and S. Potassium. Dose taken, four to five grains five times a day.

During nearly all the time of these experiments there was a cold, bracing air, generally dry. No material effect on the general system could be noticed during the use of the sulphide of calcium. We both thought we felt a little better than usual, but this might have been accidental, and for unrecognized reasons. There seemed to be neither increased appetite or thirst, nor any uneasy sensations in the stomach. There were occasional eructations, having a very disagreeable taste of sulphuretted hydrogen, and the gas which passed off per rectum had this odor to a very marked and unpleasant degree. There was evidently an increased relaxation of the bowels, but not sufficient to render the passages even semi-liquid.

The sulphide of sodium, during the time of taking it, caused considerable burning sensation in the throat, œsophagus and stomach, which finally extended along the small intestines. This was easily overcome, by either eating or drinking a little of anything after swallowing each dose.

The sulphide of potassium seemed even more acrid to the taste than the sulphide of sodium, but less burning was observed in taking it than the latter. For several days after taking each preparation the effect on the urine, in diminishing the quantity discharged, was noticeable, and the sulphides could be detected in the urine from ten to fourteen days after stopping their ingestion.

The sulphide of calcium is the least unpleasant to take; causes less gastric uneasiness; seems to be more cumulative in its effects, and its power to diminish the urine seems to continue longer than either of the other sulphides.

While we recognize the fact that these experiments are not as nicely perfect as we could wish, we think we have demonstrated clearly that the agents are very effective in diminishing the flow of urine in health.

In cases of disease, one patient who was passing over a gallon of morbid urine per day, for a long period, was given the sulphide, in three-grain doses, every three hours. In two weeks he was passing less than two pints per day. Another case, that was voiding 4½ quarts per day, in less than a week voided but a pint and a half. Another, who was voiding five pints per day, in three days voided but two and a half pints. Such clinical facts, coupled with observations on ourselves, led to the experiments above related, and, we think, with satisfactory results, in showing the power of this class of remedies over the secretion of the urinary glands, and indicate that quite a revolution in the treatment of some forms of disease may be effected, where the kidneys act as the chief eliminants.

The Conservation of Vital Force an Essential Element of Conservative Surgery.

READ BEFORE THE DETROIT MEDICAL AND LIBRARY ASSOCIATION,
BY DR. THEODORE A. M'GRAW.

MR. PRESIDENT AND GENTLEMEN :—In performing the duty which you have imposed upon me, I have thought it better to limit myself to one subject, rather than to range over the whole surgical field. I have therefore chosen to discuss in this paper the actual value of that conservative surgery which has been the boast of modern surgeons. The tone, assumed by certain authors on this subject, might lead the student to believe that the very idea of conservation was peculiar to this generation. Nothing could, of course, be more false or contrary to established facts, for there has never been a really great surgeon who did not seek to enlarge the scope of his art by discovering new methods to save deformed, diseased, and injured limbs, and make them useful to their owners. If we have been able to step in this direction a little in advance of our immediate ancestors, it is because we are now reaping the results of their ideas and labors. It may, too, be barely possible that certain modern methods of treatment have been trumpeted to an extent, not warranted by actual experience. They have, beyond all question, in many cases, when unsuccessful, caused the loss of many human lives, as witness the unfortunate and disastrous attempts made during our late war to save compound fractures of the femur from amputation.

The present impulse to conservatism originated in Germany about the time of the Schleswig-Holstein war. The German surgeons working with every advantage, having abundance of supplies and short lines of transportation, were successful in saving many limbs which would have been doomed in former wars to amputation. The triumphant publication of their successes was followed by renewed efforts on the part of surgeons of all countries to make resections take the place of amputations in the treatment of diseased limbs. This impulse gained a new momentum from the spread of new doctrines of pathology as respects certain diseases of the spongy bones and joints. For when surgeons once conceived the idea that Potts' disease of the spine, hip-joint disease, white swelling of the knee and ankle, were essentially of inflammatory character, they became seized of the impulse to try and effect their cure by treatment appropriate to an inflammatory affection. A certain success followed this movement, a success which has doubtless been somewhat overestimated. It, nevertheless, has had a very important influence on professional opinions, for this, together with certain advances in our knowledge of the nature of congenital distortions, made it possible for very timid surgeons to do good work in orthopœdic surgery, by the careful and skilful adaptation of splints. This class of men, working usually in their own institutions, with the great advantage of being able to keep their patients under constant personal supervision, have often succeeded, by slow, laborious, and patient effort, in vastly improving many defective and crippled joints. Themselves dreading all operative measures, and utterly unable to realize the difficulties which beset surgeons who have to treat such patients at their own homes, they naturally began to decry surgical operations as unnecessary and cruel. This led to a gradual, but very decided, change in the meaning of conservative surgery. For, whereas, a few years ago, surgeons were considered as conservative who saved limbs from amputation, whether by operative or any other measures; they are, now-a days, regarded by many as radical and extreme if they do not postpone operative proceedings until the patient is nearly moribund.

This unphilosophical view of operative surgery may be tolerated in the laity, whose dread of the knife is natural, though often unreasonable; but on what grounds can it be excused in medical men, whose duty requires them to judge of remedies by their efficiency, rejecting none from sentimental considerations nor cowardly fears. The ultimate object which surgeons should have in the treatment of diseased limbs should be not only, nor even chiefly, to save a limb, but rather to so handle the case that the organism, as a whole, should receive the least injury. Now, I cannot doubt, from my own experience in military surgery, that a hand or a foot may be purchased too dearly. I have seen, for example, men who, years ago, in the *furore* for conservative surgery which prevailed in the war, suffered gun-shot fractures of the femur and recovered. I have yet to see one whose constitution was not broken by the effort to save the limb. There is something which is worth more to a man than any one member of his body. It is the vital force which gives elasticity to youth, vigor to age, and zest to life at all ages. If not as tangible, it is nevertheless as positive and definate a something as an eye or a leg. A cripple, having it, will live more happily than unmutilated men whose vital energy has been exhausted.

I think, therefore, that we should first ask of any mode of treatment, whether it will preserve vital force and, after that, whether it will save injured limbs. Now, it is well known that men may suffer amputation with very little loss of constitutional strength, provided only that their stumps heal kindly. Surgical operations in general, do not seem to make much drain upon the reserve force of an individual, however much pain or immediate danger may ensue. If recovery takes place early, and without much suppuration,the patient will usually, in a short time, regain his pristine vigor. That which saps the vital force, and imposes upon youth the decrepitude of age, is long confinement to bed, continued deprivation of air and exercise, habitual pain and suffering, frequent hemorrhages, and above all, profuse and long-continued suppuration. Prima facie, therefore, in those cases, where the same end may be accomplished quickly by a surgical operation, or slowly by mechanical means and medical treatment, the bolder measure would seem the more justifiable. I have, for convenience sake, spoken of vital force as an entity. Whether this be so, or whether it consists, as I believe, in the utmost perfection of the minute organization of the most important viscera, is, for our present purpose, immaterial. The important thing is that we study the conditions of its preservation or loss, and bear them in mind in our surgical plans and proceedures. They certainly ought not to be forgotten when estimating the value of the various attempts at conservative surgery, which have of late years occupied the attention of many medical men.

The great wars of the last fifteen years have made many opportunities for surgeons to test their theories on a large scale. The actual results of their practice would, it is plain, be a better criterion of the value of their methods than any accidental successes on a smaller scale could possibly be. Just what the ultimate conclusions of the medical world ask as to the value of expectant practice in gun-shot fractures, or of excisions as practiced in cases of compound fractures of the joints or long bones will be, is, at the present time, impossible to say. My own judgment of the value of such modes of treatment is founded upon very many observations made in the military hospitals at Chattanooga during the period intervening between the battle of Chickamauga and the close of the war. I had then the opportunity of watching cases of wounds of all sorts for many months together, and had occasion to see the disasters arising from ill-judged attempts of conservatism, as well as the successes achieved, in proper cases, by surgeons of ability and experience.

Expectant treatment of wounds of bones and joints was rarely successful. Even those cases where bones had been merely bruised by bullets required, in the end, the use of the gouge or chisel before complete and final recovery was achieved. Resections of the bones and joints of the upper extremity were so often followed by very excellent results as to establish the operation as one of undoubted value. It may fairly be said that no arm or hand ought ever to be amputated on account of gun-shot or other compound fracture, when only one bone is involved, and when there are no other complications. In fact, the circulation of the upper extremity is so good that the surgeon, under favoring circumstances, may sometimes undertake to save the injured limb, even when the injury is complicated with wound of main artery or vein. Should amputation be afterwards required, it could still be performed with good hope of recovery. As regards resections of the humerus, better ultimate results might have been attained, had surgeons waited longer before operating, for very many cases of primary operations recovered without regeneration of bone. Had the shattered bone been left until the detached periosteum had become stimulated to cell growth by the irritation of the fragments, a firm, bony, structure might have replaced that which had been destroyed.

Exsections of the lower extremities have not been followed by nearly so good results. Those of the ankle were most successful, although even then the spread of caries most frequently baffled the efforts of the surgeon. Under present methods of treatment, however, much better results might be anticipated than were actually obtained during the war. I have but recently discharged a patient from Harper's Hospital who illustrates forcibly the effectiveness of the seton method of treatment for compound fractures of the joints. He is a young German, through whose foot a charge of fine shot passed, discharged from a gun at very close quarters. The charge entered the inner edge of the foot between the astragalus and os naviculare, and passed directly through, emerging at the lower edge of the foot below and behind the external malleolus. The astragalus and os calcis were badly shattered, and the wound full of shot, wadding, fragments of bone and powder. I passed oakum strings through, as recommended by Dr. Sayre, and kept up a free channel for the discharge of pus and debris. The oakum strings were gradually diminished in size, then replaced by silk and finally by silver wires. He recovered completely with absolutely perfect motion of the foot. Gun-shot fractures of the tibia or fibula may sometimes, if not too extensive, warrant exsection. In such cases the broken bones must be left in situ long enough to cause a regenerative process by the periosteum. Otherwise, there would be no replacement of the lost bone. In general, however, gun-shot fractures of the leg ought to demand immediate amputation, if not in civil practice, at least in military, for patients suffering from such injuries most frequently die of exhaustion before recovery can take place. Gun-shot fractures of the knee joint will always demand amputation, which in military practice ought to be primary. I have seen very many such cases, and never yet one of recovery. The only case of recovery of penetrating wound of the knee joint which I have ever seen, was one in which the ball had passed through under the patella without touching the bones. The probe was passed through the two wounds, and there can be no doubt that the joint was penetrated, but the wounds healed, nevertheless, by first intention. The experience of surgeons in the last war between France and Germany was very unfavorable to excision of the knee for such injuries, most all such operations were followed by the death of the patient. The same result followed excision of the hip, but as almost all patients, whose severe wounds required such an operation, died under whatever treatment was instituted, it may yet be justifiable for surgeons to try it again as a possible means of saving life. The continued attempts made by surgeons in our late war to save broken thighs, even after the experience of two and three years had demonstrated, beyond all doubt, its futility, are, to my mind, a shame and reproach to American surgery. I saw such cases by the hundred in Chattanooga hospitals. They came to linger for months in the wards, and after suffering horrible torture, to die of exhaustion or blood-poisoning Of such patients, scarcely five per cent. recovered at all, and what a recovery was that which left a man, drained of all his vitality and vigor, to drag around a neuralgic and nearly useless hip? As examining surgeon for pensions, I have, since the war, had occasion to note both the relative infrequency of pensioners who have recovered from such injuries, and the terrible price which the few have paid to secure a very doubtful blessing.

It will not do, however, to be guided too closely by military experiences in civil life. The prognosis of all injuries must manifestly be better with well-fed citizens in their own homes, and attended by a multitude of willing friends, than with soldiers who may have suffered the privations of a campaign, and whose wounds have to be dressed in infected wards by over-worked surgeons and nurses.

The well-established fact, too, of the lesser mortality of any secondry amputation in civil practice would, of itself, lead a surgeon to avoid the greater risk of primary operations, so that we may be justified in attempting many things in conservative surgery with civilians which ought never to be undertaken at all in the practice of war. Children, too, will, it must be borne in mind, recover when adults would not, and only the worst cases of compound fracture occurring in childhood should warrant amputation of an extremity, before every effort had been made for its salvation.

The treatment of those inflammations of joints, which occur so frequently among scrofulous children, has formed a very important feature of modern conservative surgery. I coincide thoroughly with Dr. Sayre in the belief that the chronic affections of joints, such as hip disease, white swelling of the knee and ankle, Potts' disease of the spine and the like, are essentially of inflammatory character. I differ with him however in the belief that healthy children are equally with scrofulous children subject to such trouble. I see in the public dispensaries connected with the Detroit Medical College, and in private practice, annually, from thirty to fifty such cases. I rarely find one in which there are not other evidences of constitutional disease besides that exhibited in one joint or one diseased bone.

As regards treatment, there can be no question that the local treatment ought to be that adapted to an inflammation of the joint. It ought to have rest and protection from injury. The accomplishment of these indications, however, are exceedingly difficult. The application of splints to make extension and counter-extension is, in general practice, of frequent benefit—but often instruments fail to give the relief we hope for.

The results attained in orthopœdic institutions are no criterion of the value of modes of treatment in private practice. A mechanical surgeon with his own manufactory of splints, and with his patients under his absolute control, can achieve, with mechanical means, what can not be done by the same means under other circumstances. It is almost impossible in private practice to control patients for the lenghth of time which is required to effect a cure of these terrible cases. The best success may be obtained in Potts' disease of the spine. The application of Taylor's splint has usually given great relief and often stopped the progress of the disease. It has however, in some cases, in my hands failed completely, and I have had to apply other means of support The use of a plaster of paris corset, as recommended by Dr. Sayre, would seem to offer a cheap and efficient means of treatment for this disease. My own experiecne in it is too limited to enable me to speak definitely of its value.

The modern modes of treatment of hip disease by extension and separation of the joint surfaces, are undoubtedly correct in theory. Practically they often fail from the inability of patients to endure the pressure of the counter-extending bands, or the irritation of the adhesive plaster on the skin. I have overcome these difficulties with well-to-do patients sometimes by having them use a variety of splints, which would have different points of resistance. By alternating a Sayres' splint with Taylor's or with a crutch-shaped splint, a patient may obtain relief from the irritation produced by perineal pressure. Where adhesive plaster has produced an undue amount of irritation, the extension may be made for a short time by attaching the lower end of the splint to the sole of a high shoe. This kind of extension however pulls too severely upon the ligaments of the knee to be endured for a great length of time. A great practical objection to the treatment of hip-joint inflammations, by splints, is its expense. Even the first expense of such an instrument is a considerable burden for poor people, but when to that is added the cost of repairs, and eventually, if abscesses occur, that of a new splint adapted to the further progress of the case, the treatment has often to be abandoned for want of means. I am confident that were the professional public opinion as to the value of this treatment of hip disease to be decided by surgeons in general practice, instead of orthopœdists by specialty, the verdict would be that it was highly unsatisfactory and that as yet no treatment has been devised which meets the actual necessities of the people. The plea which specialists advance that such cases ought to be sent to their institutions for treatment will not bear criticism, for the rich who have plenty of means can be treated at home. It is the poor who can not afford even the cost of splints, not to speak of the expense of maintenance in expensive orthopœdic asylums, who furnish the great mass of these cases. Where abscess and ulceration has taken place, I can not too highly commend the dictum of Dr. Sayre, that a surgeon ought not to wait many weeks, if improvement does not take place, before excising the diseased bone. Not but that such cases will frequently eventually recover under the tedious and pains—taking application of appropriate instruments, but the recovery is purchased at the expense of an enormous amount of vital force. Excision of a carious hip-joint, if undertaken at an early period of the disease, is by no means so shocking an operation as is usually supposed. There is no great shock experienced by the system in cutting through bone which has become soft and friable by disease, and if the statistics of the operation are bad, it is, I am convinced, because surgeons have foolishly postponed its execution until the kidneys and other viscera have become diseased and the patients have become nearly moribund.

The removal of the diseased bone is, with patients of unimpaired constitution, a relief from suffering and exhausting suppuration. The wound usually heals in a few weeks, and the patient is in the end infinitely better off than if his recovery had been prolonged through many months of wretchedness and pain, in order to escape the much-dreaded operation.

Chronic knee-joint inflammations are even more to be dreaded than hip joint disease. It is even more difficult to cure and includes very many more patients of adult age. The treatment by extension has in my experience been not at all satisfactory. Neither is there the same necessity for extension as in the hip joint, for while the powerful muscles around the latter joint, by their reflex contraction, jam the two small opposing surfaces of the joint into violent contact, the knee is comparatively independent of such influences. It has, in the first place, very large surfaces, over which any such force is distributed—and, in the second place, the reflex irritation of those muscles of the ham which alone seem to suffer in disease of this joint, do not tend to force the joint surfaces together, but as is well known, to pull them apart, causing a spontaneous partial dislocation of the knee backwards,—so that while we apply extension in the hip to relieve a cause of inflammation, namely the pressure produced by muscular contraction, we need in the knee to use it for the sole purpose of preventing deformity. It is furthermore not possible in the early stages of joint disease to separate the joint surfaces by extension. The ligaments are unyielding and only give after they have become softened by disease. It is my belief that a plaster bandage and abstinence from walking on the foot will do all for such cases that can be done by an extension apparatus. Excision of this joint is of more doubtful propriety than of the hip or ankle, but is followed by sufficiently numerous recoveries to warrant its attempt when other means have failed.

I have failed utterly in the application of extension apparatus to the ankle. A plaster bandage producing absolute rest and equable compression is to my mind the best mode of treatment. If the diseases run on to suppuration, the early evacuation of the pus, the removal of all diseased bone and the passage of setons through the wounds seems to be the best mode of treatment.

The treatment of club foot and allied deformities ought not to pass without notice. Some surgeons have taken great glory to themselves, because they have succeeded in stretching the tendo achilles, and thus avoiding the terrible operation of tenotomy. To me, this kind of glorification seems very absurd. The operation of tenotomy is one of the simplest in all surgery, and is rarely followed by any ill results whatever. Now in new born infants, the tendon may often be stretched without any difficulty whatever, and the deformity cured by very simple means; so also with acquired cases of short standing. But with congenital cases of two or three years old, the stretching of the tendon is a very long, very tedious, and very painful process, a process which must cause more injury to a child, twenty times over, than the simple subcutaneous division of the contracted structure. The actual ends, accomplished by the loud blasts, which some surgeons have seen fit to issue against this little operation, have been the injurious postponement of the cure of such deformities to a period when the bones had become altered in shape, the ligaments contracted and dense, and the paralysis, if such exist, confirmed and incurable. It is a well established fact that club-foot is usually a result of paralysis. One of the first indications therefore of treatment should be the recovery of those paralyzed muscles. Their long-continued extension, kept up by the contracted conditions of their opponents, is a great hindrance to their recovery. Sound pathology would therefore indicate the necessity of speed in overcoming this contraction, and there is no method so speedy as tenotomy. The treatment of these deformities by such methods as have been recommended by Prince and others, in which apparatus has to be daily adjusted to the foot by the surgeon himself, or a skilled assistant, is out of the question with the general practitioner. It is easy to say that time ought to be of no consequence compared with the cure of the case, and few men have the hardihood to oppose an assertion which would seem to be dictated by considerations of humanity. But in fact time is of great importance to the practitioner of medicine. There are but twenty-four hours in the day, and no man of extensive practice can afford to give too great a portion of time to a single patient. Besides, patients themselves can rarely afford time for daily treatment, and methods, which require it, can never be of general avail. A similar criticism might be made upon all of those refined methods of treatment, by which surgeons undertake to arrange cords for traction in the direction of the paralyzed muscle. Elaborate and complicated shoes can never work in general practice, for a surgeon, who is not a special orthopœdist, requires what has not yet been invented, a simple method of treating club-foot, and a simple shoe, which will be sufficiently effective, and yet which can be readily made by a village shoemaker and as readily put on by the father or mother of the patient.

Mr. President and Gentlemen—I have tried in this paper to illustrate the principle, which seems of late years to have been almost forgotten in our surgical practice, namely, that time is of the utmost importance in the cure of diseased conditions. It is not an indifferent matter whether a child recovers from hip disease in three months or three years, or whether a club-foot is brought in proper shape in four weeks or twenty. Speedy cures mean often more perfect cures than delayed cures, for delay in very many cases causes secondary troubles, which may eventually kill the patient. In all cases it renders it more difficult for the organism to revert to its normal condition. Now, surgical operations are of that great service that they hasten the event, often curing in a few days or weeks what it otherwise would cause months or years to accomplish. I have therefore desired to call your attention to this important part, which operative surgery plays as an agent of the conservative surgeon.

Tetanus.

A PAPER READ BEFORE THE DETROIT ACADEMY OF MEDICINE.

BY N. F. BROWN, M.D.

This is a disease which has perhaps baffled the skill of the learned of the profession, in regard to its pathology and treatment, as much as any in the catalogue of diseases

Tetanus is defined as a functional affection of the muscular system, in which there is continued rigidity of the muscles, accompanied with spasms, generally of a tonic character. Tetanus frequently arises from wounds or injuries, when it is designated as traumatic tetanus; occurring otherwise, it is termed idiopathic tetanus.

The important varieties of this disease are the traumatic and idiopathic. The latter variety is seldom seen.

Tetanus occurs in all ages, from early infancy to old age, but authors generally agree that it attacks the younger members of community, and that it is usually of the traumatic character.

Climate seems to exert a decided influence upon the disease, cases occurring much more frequently in warm and tropical regions than in temperate or cold latitudes. The causes of the disease are numerous, but prominent among these are wounds, particularly lacerated wounds; and it is worthy of notice that tetanus frequently results from a very slight wound, and that extensive lacerations are not so apt to be followed with the disease. All constitutions are susceptible to the disease, but generally the subject is one of debility, yet in hot climates a robust laborer is as apt to have tetanus from a slight wound as his weaker companion.

The diagnosis is generally easily made, but the physiological effects of strychnia may be mistaken for tetanus.

When we look at a case of tetanus, we are astounded at the unknown morbific agent, or agents, which produce this terrible condition; and as post mortem examinations have thrown but little light on its pathology, we are compelled to treat the disease empirically. As I am not able to add anything to the literature of this subject, I will report upon a case of the traumatic variety which came under my care a few months since.

In the evening of the 28th of last September I was called to see a German, married, thirty-six years of age, light, wiry frame, nervous temperament, and exceedingly irritable temper.

This man, although a "hard drinker," was industrious, and could work at anything from "roust-about" to blacksmithing and carriage making, and while thus employed, tramped upon a rusty nail, which passed through the sole of the shoe and entered the great toe, passing through close to the bone. After removing the nail he bathed the toe with cold water, and as the wound was not painful, continued work, and after one day the discharge ceased, the wound closed up; but on the fourth day it became painful and slightly inflamed, and on the fifth day he complained of aching in the lower extremities and "stiffness" in the neck and back.

In the evening, when I called, I found him sitting in a chair, perfectly rational, but quite sensitive and anxious; complained some of sore throat, but muscles of the face were not yet affected, but movements of the body caused great pain in the posterior muscles of the neck and back.

I gave chloral and bromide of potassium every hour in doses of twenty grains, but he was not able to take more than three doses, as trismus took place shortly after taking the third dose. In the morning I found him in true tetanic spasm, and all the muscles of the trunk and extremities seemed to be involved, and the body inclined to opisthotonos, the rigidity of the muscles being so severe that the body could have been wholly raised by lifting at either extremity. Deglutition being almost impossible, as even the contemplation of food or drink would induce severe spasm, I gave one grain of sulphate of morphia hypodermically, which had the effect of decidedly amelioration the suffering of the patient.

He regained the use of his arms for a short time, which, previous to this, were immovable. During this time of relief considerable nourishment was taken in a liquid form, and the patient became quite cheerful, and expected to recover. He also took large doses of quinine, bromide of potassium, and belladonna during this time, but after about six hours of partial relief, the spasms became more frequent and severe, and swallowing being impossible, I again gave morphia subcutaneously, but without decided effect.

The mind of the patient continued perfectly clear, but the suffering was indescribable, and continued till the fifth day, when there was considerable diminution of pain and spasm, lasting about one hour, when the patient gave a terrible shriek, the body assuming the position of emprosthotonos, which continued a few moments, and death came to the relief of the sufferer.

A Case of Division of the Tendo Achillis.

BY ROBT. F. NOYES, M. D., PROVIDENCE, R. I.

Mr. X., aged 55, had the misfortune upon Oct. 14, 1876, to sever with an adze, the great tendon formed by the gastrocnemius and Soleus muscles. I was at once dispatched for, and upon arrival found a gaping wound, with an inch intervening between the superior and inferior portions of the cut tendon. Knowing the power of retraction of the muscles implicated, I deemed it inexpedient to attempt the approximation of the ends of the tendon by main force.

I flexed the leg upon the thigh, and extended the foot upon the leg, and brought together with one or two stitches the lips of the gaping integuments. Light dressing were now applied; the position rigidly maintained by means of a slipper, from the heel of which extended a cord to be fastened to the thigh joint above the knee. The wound healed by granulation in six weeks, when the patient was allowed to move about upon crutches for six weeks longer. Then one crutch was dropped, and after this a cane was employed—when to-day, May 1, '77, he may be seen in the streets walking so well that close attention is required to appreciate the slight inability.

The division of the tendon, the retraction of the muscles, and the healing of the wounds by granulation, present no phenomona of particular interest. The treatment too was simply rational in its character. Flexion complete and continuous must be maintained. That nature should be kind enough to strongly unite the cut ends of the tendon without inflicting upon its periphery adhesions so strong as to interfere with the action of great muscles of the calf is perhaps worthy of a passing thought. The material by which the ends of tendons are united is analogous to, but not identical with the tendon itself. Adams and Padget have demonstrated that the bond of union is fibrous in its character, and that it is formed of some elasticity. Hence in large tendons, it is necessary that nature shall have completely performed her duty before a strain is brought to bear upon the tendon. To obviate elongation my patients was required to wear a high heel upon his boot.

Reports of Societies.

Michigan State Medical Society — Eleventh Annual Meeting.

REPORTED BY THEO. F. KERR, M. D.

FIRST DAY—MORNING SESSION.

BATTLE CREEK, May 9, 1877.

The Society assembled in the Opera House, and was called to order at 10:30 o'clock by Vice-President Foster Pratt, who presided in the absence of the President, Prof. Abram Sager.

Prayer was offered by the Rev. L. H. Pearce.

Mayor Austin then extended the hospitality of the city to the Society in the following

ADDRESS OF WELCOME.

Mr. President and Gentlemen of the Michigan State Medical Society:

It affords me much pleasure to represent the city of Battle Creek before you to-day, and express our sense of the honor you confer upon us by holding your eleventh annual meeting in our city.

We appreciate the importance of all such gatherings for the advancement of science and art, where thought clashes with thought and mind with mind; where the experience of wise observers and patient students widens the range and enriches the domain of investigation; but more especially do we appreciate this assembling of those who daily labor to prevent or cure our bodily ailments; who strive to reduce the sum total of human suffering to its minumun; who brave the dangers of contagious disease when others falter and desert us; for whom the midnight storm has no terrors when human agony cries for help; whose flag secures immunity from attack on every field of battle, be it among civilized or Christian, Cossack or Turk. As a medicine man and healer, Dr. Livingstone commanded the admiration and awe of the untutored natives of Africa, rather than as an explorer.

Nor can we consider yours a profession likely to be adopted by the ultra ambitious man. Does a man desire wealth—commerce may employ his energies and gratify his desires; if he seeks fame, the bar opens a road travelled by many a successful aspirant; but you have chosen a profession yielding only a modicum of either and whose highest reward is in the satisfaction of enjoying our confidence in the closest social relations, tendering us your sympathy, diminishing the sum of our sorrows, ministering to our comfort and relieving our suffering.

So long as man exists, so long will he cling to life and so long will he revere him whose vocation it is to postpone as long as possible what man considers as the evil day of his departure.

But while we gladly welcome you as members of this ancient and progressive, noble and ennobling profession, candor compels us to say that if from lack of business or other causes you are dissatisfied with your present locations, we could not advise you to take up your permanent residence in Battle Creek, not only because it is possible to have too much of a good thing, but because we are a provokingly healthy people.

You will observe a few care-worn, pensive, woe begone appearing people in our midst, but with your usual discernment you will conclude that they are our resident physicians, blue and heart-sick, poor and discouraged, at the determination of our people not to be sick. We bespeak for them your cordial sympathy.

Permit me, gentlemen, again to express the pleasure it affords us to greet you and to tender to you the freedom of the city of Battle Creek, and the hospitalities of her citizens whom I have the honor this morning to represent.

Roll call by the Secretary followed, and showed a fair attendance.

On motion, the reading of the minutes was dispensed with.

Dr. E. Cox, Chairman of the Executive Committee, reported an order of business, printed copies of which were in the hands of the members, providing for a two days' session. He also reported that the Opera House was secured free of charge, and read two communications, one from the Secretary of the School Board, inviting the Society or individual members thereof to visit the High School at their pleasure, the other from Shephard, Nichols & Co., inviting the Society to visit their large manufacturing establishment.

The report was accepted and adopted.

The President announced the following temporary Committee on Admissions: Drs. G. K. Johnson, J. B. White, Wm. Brodie, D. Nims, E. Twiss.

The following gentlemen having been proposed for membership and approved by the Committee, were elected:

O. C. Lyon, Tekonsha; A. G. Sinclair, Detroit; A. S.

Snow, Laingsburg; Theo. F. Kerr, Detroit; C. H. Hammond, Ionia; A. W. Alvord, Clinton; J. H. Kellogg, Battle Creek; G. C. Pease, Fulton; J. H. Montgomery, Marshall.

Adjourned to 2:30 P. M.

AFTERNOON SESSION.

Vice-President Pratt in the chair.

Minutes read and approved.

Dr. Brodie, in a neat speech, in which he paid a high tribute to his early labors for the profession, nominated for honorary membership Dr. A. S. Leete, of Romeo, and moved that his dues be remitted. The motion was carried, and the Dr. was elected by acclamation.

SECRETARY'S CORRESPONDENCE.

E. B. Smith & Co., Detroit, publishers of the DETROIT MEDICAL JOURNAL, submitted, in writing, a proposition to publish the transactions and papers of the Society in successive numbers of the JOURNAL, and when completed to issue the same in pamphlet form, uniform with previous editions of the transactions, for the sum of two hundred and fifty dollars. For this amount, and without any further charge, they would guarantee to every member of the Society, whose dues for this year were paid, a copy of the transactions in pamphlet form, and a copy of the DETROIT MEDICAL JOURNAL for the balance of the year.

On motion of Dr. Brodie, the proposition was referred to a committee of three, together with the Finance Committee.

A letter from Prof. McLean, of the University, was read, in which he expressed his repudiation of, and withdrawal from, the Society.

On motion, the letter was laid on the table.

Letters from the Union Medical Society of Wayne, Washtenaw and Oakland, Kalamazoo Medical Society, St. Joseph Valley Medical Association, and the Saginaw City Academy of Medicine, were also read, stating that those organizations endorsed the proposed amendment to the constitution offered by the "Committee of Nine" at the last meeting of the Society.

A letter from the Branch County Medical Society stated that the proposed amendment was not endorsed by that society.

Communications from the Maine Medical Association and the Fountain County, Indiana, Medical Society, endorsing the spirit of the proposed amendment, were also read.

On motion of Dr. Brodie, the two latter communications were laid on the table.

The following telegram was at this moment handed the Secretary:

MADISON, WIS., May 9, '77.

Geo. E. Ranney, M. D., Secretary Michigan State Medical Society:

The Wisconsin State Medical Society, in session at Madison, sends greeting to the Michigan State Medical Society in session at Battle Creek, and congratulates it upon its honorable and advanced position in the cause of medical science. J. T. REEVES, M. D., *Secretary.*

On motion of Dr. Brodie, the Secretary was instructed to reply to the dispatch, acknowledging its receipt and extending the compliments of this Society in return.

The following reply was sent:

BATTLE CREEK, May 9, '77.

J. T. Reeves, M. D., Secretary Wisconsin State Medical Society:

The Michigan State Medical Society cordially reciprocates your fraternal greeting, with best wishes for your medical prosperity.

GEO. E. RANNEY, M. D., *Secretary.*

The Secretary then made his report, from which it appeared that there were 274 members of the Society, two having died and two having resigned during the last year.

[Twenty-nine members were added during this session, making the present total membership 303.]—REP.

The Treasurer reported that the receipts for the last year had been $594.00, and the expenditures $355.49, leaving a balance on hand of $238.51.

On motion of Dr. Brodie, the reports were referred to the Finance Committee.

The chair announced the following committee to consider, together with the Finance Committee, the proposition of E. B. Smith & Co., viz.: Drs. Geo. E. Ranney, Jas. A. Brown and B. Barnum.

Dr. Inglis, of Detroit, then read the first volunteer communication of the meeting, entitled "Small-Pox in its Medico-Legal Aspects."

The author advocated compulsory vaccination by the State and the more thorough enforcement of laws providing for isolation. He exhibited statistics showing the almost complete immunity from small pox enjoyed by the British army, in which compulsory vaccination is universally enforced. In a clear and forcible statement, he showed what a farce the laws providing for isolation were, and pointed out the ridiculousness of the "penny wise, pound foolish" method of fighting the disease followed out in Detroit. To allay the just fears of the people concerning the pernicious effects of vaccination, only bovine virus should be used.

On motion, a vote of thanks was extended the author, and the paper referred to the Publication Committee.

Dr. Brodie, of Detroit, said he thought the paper a very good one—in theory, but it was very impracticable. However, if this Society proposed to favor compulsory vaccination by the State, the State should be asked to furnish the means of carrying out its own provisions. Mr. Baker had brought before the Legislature a bill requiring the Agricultural College to furnish bovine virus to the physicians of the State without charge. Here was a chance to make the College useful to somebody, and he approved the passage of the bill. He would, therefore, submit the following resolution:

Resolved, That the Michigan State Medical Society respectfully ask of the Legislature, now in session, the passage of the bill now pending; that the Agricultural College furnish bovine virus free of charge to the medical profession of this State, on certificate that it will be used by the receiver, and that this resolution be signed by the President and Secretary, and forwarded to the State Legislature.

Dr. Ranney, of Lansing, said that he knew how the committee that had Mr. Baker's bill under consideration felt about the matter. To their minds it was a very impracticable scheme, and they would report adversely to its passage. Besides, the bill did not propose to furnish the virus free, but at actual cost,

[illegible]

an epidemic of the disease might originate in the dissecting room from the bacteria germ carried away on the fingers, and that it might be maintained by some endemic influence which caused the uterus to remain lax and flabby, and the sinsuses open. To prevent the latter condition, when an epidemic was threatened in his own practice, he began the administration of ergot during the second stage of labor, and continued its use for several days, till he thought all danger from that cause past. He maintained that the disease could be successfully combatted by throwing into the circulation a solution that would effectually destroy all bacteria, and detailed some experiments with their results to prove that such procedure had been successful in the case of living animals.

The paper was a thoroughly original one, and was referred to the Publication Committee with the thanks of the Society.

Dr. Ranney, of Lansing, offered the following amendment of the constitution:

Resolved, That the constitution be amended so as to read: This association shall be called the Michigan State Medical Society, and shall be composed of resident, corresponding and honorary members; also,

Resolved, That a new section be inserted as follows: Corresponding members may be non-residents of Michigan, and shall be elected by a two-thirds vote at any regular meeting, having been first recommended by the Committee on Admsssions; except those who having been resident members have removed from the State and belong to a local medical society where they reside, may, by paying their annual dues and complying with the other regulations of the Society, become corresponding members, and be entitled to all the rights of resident members.

Laid over under the rules for one year.

Dr. Brodie moved to take from the table the following resolution, offered by Dr. Foster Pratt one year ago:

Resolved, That this constitution may be amended in the manner following:

The proposed amendment or addition shall be presented in writing and shall lie on the table for one year, and if approved by two-thirds of the members present at a regular meeting, it shall be declared adopted.

The motion prevailed, and the resolution was then unanimously adopted.

Dr. Hitchcock, of Kalamazoo, offered the following, which had been passed by the Kalamazoo Medical Society; he had been instructed to bring the resolution to the State Society and request their action on it.

> *Resolved*, That it is inconsistent with the spirit of our code of ethics for a member of our profession, acting as expert assistant to a lawyer, to work up a case of malpractice against an honorable and reputable member thereof, or voluntarily to give expert testimony against such a member who may have been made defendant in such a suit.

Dr. Brodie, of Detroit moved that the resolution be referred to the Judicial Council.

Dr. Hitchcock hoped the resolution would not go to a committee. The Kalamazoo Society desired an expression of opinion on this matter from the State Society in regular open session. It sometimes happened that an epidemic of malpractice suits sprung up and swept over some section of the country. Such an epidemic was now raging in Kalamazoo. As the result of a recent suit in that village, three suits for malpractice were now pending in their county court. Great wrongs had been committed and greater wrongs might follow; no one was safe; it was time that the Society put its foot on such practices.

Dr. Jerome, of Saginaw, moved to amend Dr. Brodie's motion by first taking a vote of the Society on the resolution. Several members supported the resolution in short, but very positive speeches, and Dr. Jerome's amendment was then unanimously carried. The original motion as amended was adopted.

Adjourned to 7.30 P. M.

EVENING SESSION.

Vice President Pratt in the chair.

Roll call and reading of the minutes dispensed with.

The chair, in behalf of Mrs. Sweet, presented to the society a beautiful bouquet, as a token of welcome to the city, as a memorial to her father, Dr. J. Chatterton, and as a compliment to the society.

A vote of thanks was extended Mrs. Sweet for her kindness.

Vice President Eugene Smith was called to the chair, and Dr. Pratt delivered the annual address.

The speaker eulogized the President, Prof. A. Sager, and paid a high compliment to his professional attainments. The address was a plea for the abandonment of medical teaching by the state and its control by the medical profession. They alone are capable of solving wisely the many problems which must arise in the endeavors to advance medical science. Under our form of government the representatives of the people are too often demagogues, who have no conception of true science or its necessities, and would sacrifice the most vital interests for trifling causes, or barter them away for political preferment. It was absurd to expect anything of benefit to medicine from men swayed by such motives.

The speaker also argued in favor of a better preliminary education and longer courses of study in medical schools. These reforms could only be accomplished by a general demand on the part of the profession for their enforcement.

A vote of thanks was extended to the President, and a copy of the address solicited for publication.

The exercises were interspersed with some excellent singing by a local quartette, which very much enlivened the evening's session, and added zest to its enjoyment by the large audience of the *elite* of the city.

A motion was made to adjourn, but was waived on motion of Dr. Johnson, of Grand Rapids, to request Dr. Eugene Smith, of Detroit, to read a paper on "Visual Troubles during Pregnancy and Parturition," which he had with him and could read in a few minutes.

The paper was read and referred to the publication committee. Dr. Beech, of Coldwater, moved a special vote of thanks to the author for elucidating many points of great interest to the general practitioner, and of much value in every day practice. Carried.

Adjourned to 9.30 A. M., May 10.

SECOND DAY—MORNING SESSION.

Vice President Pratt in the chair.

Reports of special committees being in order, Dr. Jenks, of Detroit, made his report " On Some of the Surgical Diseases of Women," choosing for his subject "Plastic Operations in the Vagina with especial Reference to the Operation for partially ruptured Perineum."

The author gave a brief history of the operations for the cure of this condition and exhibited drawings to show the relations of the rectum and vagina with the perineum intact and after partial or complete rupture had taken place.

He then described an operation for the cure of partially lacerated perineum, original with himself, substantially as follows: The patient is anæsthetized and placed on the back, and two assistants hold the labia apart. The operator passes two fingers of the left hand into the rectum, and spreads out flat upon them the recto-vaginal septum. In his right hand he takes a pair of scissors, sharp pointed, slightly curved, and passes them beneath the mucous membrane at a point where it meets the skin of the left labia majora. A portion of the mucous membrane on that side is dissected up without once allowing the point of the scissors to emerge, and the same process is continued right across the median line, and the membrane on the right side dissected up in the same manner, until the point of the scissors are brought around to the place of entrance. No blood flows during this procedure except where the handles of the scissors pass beneath the mucous membrane. The part dissected up is then removed with round pointed scissors and should resemble in shape a butterfly with the wings spread, the head of the insect pointing upwards in the vagina. Sutures are then applied, and the operation is complete.

It is sometimes necessary to narrow the anterior wall of the vagina for cystocele as the result of laceration of the perineum, and this should be performed but a short time before the operation on the perineum, as otherwise the same condition soon results again for lack of support. Instead of a V-shaped piece the author removes a T-shaped piece, the arms being at the junction of the uterus and vagina.

Emmett's operation for lacerated cervix was briefly commended.

All these operations in the vagina are beneficial from another point of view, viz., they result in much less cicatricial tissue than lacerations left to heal of themselves, and so are far less liable to cause the irritations and neuralgias which often follow the latter procedure.

The paper was referred with thanks.

Dr. Dunster, of Ann Arbor, reported "On the Extension and Use of the Forceps," making "A Plea for the more frequent use of Forceps in shortening the second stage of Labor." His plea was that by an early use of the forceps we frequently can save fœtal life and sometimes maternal. It was in the second stage of labor that fœtal life was threatened most frequently, and it was then that the forceps could be properly used. It saved the mother pain, and thus conduced to a quick recovery. He controverted the idea that pain was physiological and should not be interfered with. Without doubt long continued pain depressed the system and retarded recovery.

Statistics extending over a long period of years, taken from the records of British hospitals, were exhibited, showing the gradual increase in frequency of the use of the forceps, a corresponding decrease in the operation for craniotomy, and the consequent much lower mortality to both mother and child. The paper was referred to the Publication Committee with the thanks of the society.

Dr. Jenks, of Detroit, said he heartily endorsed the views presented in the paper. The fear of the forceps arose from the old maxim, "Meddlesome midwifery is bad." It was no argument against the forceps that harm is sometimes done with them. It was rather a plea for better education in their use. When the os was dilated and the waters were discharged, there were three things the obstetrician could do—wait on nature, administer ergot, or apply the forceps. But nature destroys many children, causes fistulas, lacerations, inflammations; ergot has out-Heroded Herod—has destroyed more children than that monster ever did. Then use the forceps, for there was no danger in emptying the uterus slowly, nor did the worst cases of lacerated perineum result from the use of the instrument.

Dr. Brodie, of Detroit, said that when he began practice in Detroit there was great opposition to the use of the forceps. The consent of the clergy had always to be secured before the instrument was applied. Now, perhaps, he used them twice in every five deliveries. There was no danger from the forceps in the hands of an educated man.

Dr. Foster, of Otsego, spoke in favor of a more frequent use of the forceps. During the past fifteen years he had used them more frequently than before, as he had been taught to avoid their use. He believed he had better and quicker recoveries now than formerly.

Dr. Hitchcock, of Kalamazoo, related the case of a woman whom he saw delivered when he was a student in Bellevue Hospital. When the child was brought forth a ring was observed encircling the neck, which proved to be the neck of the uterus. He had heard Prof. Gilman's teachings in the College of Physicians and Surgeons, N. Y., who, when he had finished his lecture on the use of the forceps, used to fling them across the amphitheatre to show the estimation in which he held them. He had made up his mind, even then, to use them more frequently, and both his experience and observation led him to believe the results most excellent, when used early and intelligently.

The following were elected members on recommendation of the Committee;

A. M. Stephenson, Adrian; W. W. Cambell, Mason; Donald McKay, Prairieville.

The Judicial Council submitted the following report:

1. In the matter of the charges of Dr. J. E. Jerome against Dr. B. B. Ross, of East Saginaw, we find that the charges have been sustained, and as Dr. Ross is not a member of the local society in Saginaw, to whom the charges have been referred, we recommend that the name of Dr. B. B. Ross be stricken from the roll.

2. In the matter of the resolution presented by the Kalamazoo

Medical Society, referred to this council, the same is adopted as an ordinance of this society.

3. In the matter of charges against Dr. Fairchild, formerly of Niles, but now of Detroit, the same have not been sustained.

4. In the matter of the complaint of the Bay City Medical Society versus the Regular Bay County Medical Society, we find that the State Medical Society have no jurisdiction.

The Finance Committee submitted a report approving as correct the annual reports of the Secretary and Treasurer, and recommending the usual appropriation of $100,00 for the annual salary of the Secretary. They also recommended that no change be made in the manner of publishing the minutes which was understood as a rejection of the proposition of E. B. Smith & Co.

The Committee on Necrology reported two deaths during the year, Dr. H. S. Cheever, of Ann Arbor, and Dr. Zenas Bliss, of Grand Rapids.

Dr. Thomas, of Bay City, offered the following resolutions and moved their adoption:

WHEREAS, This and all other medical societies recognized by and entitled to representation in the American Medical Association are bound to observe its code of ethics; and,

WHEREAS, The American Medical Association at its session in June, 1876, adopted the following resolution:

Resolved, That members of the medical profession who in any way aid or abet the graduation of medical students in irregular or exclusive systems of medicine are deemed thereby to violate the spirit of the code of ethics of the American Medical Association; now, therefore,

Resolved, That The Michigan State Medical Association cordially indorse this resolution of the American Medical Association, and accept it as an authoritative interpretation of the ethical code.

Dr. Brodie moved to lay on the table. Lost.

He then moved to lay on the table till two o'clock. Lost.

He then called for the yeas and nays on the last vote, but the call was not sustained.

The resolutions were then adopted with few dissenting votes.

Dr. Carstens, of Detroit, submitted the following resolutions which were unanimously adopted.

WHEREAS, There is a bill before Congress to remove the tariff on Quinine, and,

WHEREAS, By the tariff a few men are enabled to get up a corner on Quinine and increase the price of that drug, and,

WHEREAS, Especially the poor and the sick suffer when Quinine is very expensive, as the consumer must pay for the drug whatever the price, there being no reliable substitute for this extensively-used therapeutic agent:

Resolved, That it is the sense of the Michigan State Medical Society that the bill to remove the tariff on Quinine, now before Congress, should pass that body.

Resolved, That the Secretary be instructed to send a copy of these resolutions to the Senators and representatives in Congress from this State.

Dr. Jerome, of Saginaw, called from the table the famous amendment to the constitution proposed by the "Committee of nine" last year.

It was immediately moved to lay on the table for another year, which was carried, no disposition being manifested to discuss a question which had been referred to the American Medical Association.

Dr. Fiske, of Kalamazoo, moved to take from the table the letters from Maine and Indiana, read yesterday, and to instruct the Secretary to return to those organizations, our thanks for their manifestations of fraternal feeling.

Dr. Brodie opposed the motion, and characterized the letters as "impertinent interference in our home affairs;" but the motion, nevertheless, prevailed by a large majority.

Dr. Mar offered the following amendment to the constitution which was laid over for one year, under the rules:

"Evidence of two years reputable practice after graduation from a regular medical college, or of five years' reputable practice without graduation, as proof of established professional character shall be furnished by all applicants for membership to this society."

Adjourned to 2 P. M.

AFTERNOON SESSION.

Vice President Pratt in the chair.

Dr. Jerome proposed for honorary membership, Dr. O. C. Comstock, Marshall, and he was elected by acclamation.

Dr. Ranney, of Lansing, proposed for honorary membership Dr. John Day, President of the Australian Medical Association, and Dr. Wm. Neil, honorary Secretary of the same and editor of the *Australian Medical Journal*. They were elected by acclamation.

Prof. McLean asked if he was the person referred to in the morning papers, as having offered his resignation as a member of this society. Being answered in the affirmative, his letter, on motion, was taken from the table and the resignation withdrawn.

The chair announced the following as members of the Committee on nominations. Drs. J. B. White, Saginaw; Jas. A. Brown, Detroit; E. Twiss, Union City; E. B. Ward, Jackson; J. Andrews, Paw Paw.

On recommendation of the Committee on nominations the following applicants were elected members; Wm. Russell, Ann Arbor; Katie Lindsay, Battle Creek; J. M. Rankin, Richmond.

The election of officers being in order an informal ballot was ordered, and Drs. Brodie and Foster were appointed tellers.

Vice President G. K. Johnson was called to the chair.

Pending the announcement of the vote, Dr. Jenks, of Detroit, moved that the nominating committee appoint the delegates to the American Medical Association. Carried.

Dr. Brodie announced as the result of the ballot, 54 ballots cast, of which Foster Pratt received 32, G. K. Johnson 6, E Cox 5, scattering 11.

On motion of Dr. Brodie, the ballot was declared formal and Foster Pratt was announced as the President elect for the ensuing year.

He briefly thanked the society for the honor thus conferred upon him and again assumed the duties of the chair. Three members of the Judical Council were then elected by ballot in place of Drs. Beech, Nims and Johnson.

Pending the announcement of the vote, Dr. Jerome, of Saginaw, presented the following resolution, which was unanimously adopted on a rising vote :

Resolved, That this society give their expression of grateful remembrance to the many private and professional virtues of Prof. Abram Sager, M. D., our late President, during the many years of his unblemished professional life, and deep sympathy for him in his present enfeebled condition of bodily health."

Dr. Brodie announced as the result of several ballotings that Drs. Johnson, Nims and Cox, were elected members of the Judical Council for three years.

Dr. Jerome, of Saginaw, moved that the "Committe on Medical Legislation" be discharged, and in support of his resolution made the following speech :

During all the years of the existence of this society an effort has been put forth in good faith to establish and maintain a friendly and fraternal relation with the Legislature of our State, believing that mutual good would be derived from comity of action. But I may safely say that instead of like kindly sentiment being reflected from that body, no opportunity has been lost to characterize and humiliate the profession of medicine by the Legislature of Michigan.

The usual method and opportunity of this display has been on the application of the Regents of the University for money to meet the annual wants of that institution for educational purposes—not medical—as that department was self-supporting. The constitution of our State has wisely prohibited the Legislature from any governing influence over the University, committing it to the care and guardianship of a Board of Regents, selected from men of high educational attainment, who are supposed to better understand the wants of a higher grade of culture than the common schools with which our Solons were left to grapple at will. If we pass over former Legislatures and come to consider the present one, we find a unique body, not inaptly denominated by the little breezy *Evening News*, the "Lansing Grammar and Spelling Schools."

The head-center of the spelling school, so far as relates to our profession, is one C. B. Mills, who, I understand, to be one of the "hard-shell" itinerating clerical persuasion, with a short-hand medical attachment, from Tuscola, with whom to know less than all the world beside would be a mortal sin.

In his report to the spelling school on medical matters, he descants thus, as we find in the *Legislative Journal* of March 10th: "And when it is considered that the great majority of the members of these associations that are not interested in other rival institutions, are men whose medical culture bears no comparison with that provided for in the University, the significance of this opposition is apparent." Having delivered himself of this gorgeous proposition, as if to tone down a little and even up with the University, least they might put on some additional airs, he very kindly makes mention of the arrangement made by the doctors of the University, for the care and general management of the hospital under their charge, and particularly relative to their nurses; that if "none can be found who can be trusted among Americans, it is respectfully suggested that Chinamen be employed, or Hottentots might be imported for that service." The talent of this mixed body is so diversified, however, that they need not confine their labors exclusively to the higher development in medical literature, consequently have found leisure to grapple with the great question of Sabbath desecration, so frequently indulged in by the poorer classes, and more particularly by our German population, who have attempted surreptitiously to economize their time by getting married on the Sabbath day, and now find to their utter consternation that such a thing could not be did at all. Poor things! Happily, however for this class, the bill of rights adopted by the grammar and spelling schools, does not specify whether the Christian or the hard shell Sabbath is the one intended.

We next find the "head center" on a bull-dozing mission to the Regents of the University, whose total subserviency is demanded, endorsed by eighty-three members of the Lansing mixed schools, the results of which are to be known hereafter.

In one of the particular moods of this august body, it was discovered that in some way for cousins to get married begat idiots; upon which practice they deemed it their duty to affix their great seal of condemnation. On this branch of their duty the *N. Y. Times* of April 25th, has commented quite to our liking, which we beg leave to read:

"MICHIGAN COUSINS."

There may be an exceptional desire on the part of the people of Michigan to marry their cousins, but the introduction of a law into the Legislature of that State prohibiting the marriage of cousins does not prove that such is the case. All the old fashioned Bibles—those six inches in thickness which were used to raise the youngest child to the level of the family dinner table—expressly forbid a man to marry his grandmother; but it is notorious that at no time since the beginning of the Christian year has there been any general desire on the part of grandchildren to marry their grandparents. The true meaning of the Michigan bill undoubtedly is, that some rich legislator, with a willful daughter and a worthless nephew, desires to have a legal pretext to prevent the young people from wasting his kerosene by sitting up till midnight in his front parlor.

The argument that cousins should not marry is based upon the alleged fact that the offspring—which is a delicate way of alluding to children—of such marriages are universally idiots, with deaf, dumb and blind attachments. The statistics of our various asylums show that among the patients whose minds and senses are not in good running order, are frequently found the offspring of cousins. Of course, if cousins intend to act in this inexcusable way, they ought not to be allowed to marry. The argument is an excellent one, were it only based on facts; but, as it is not so based, it is rather more worthless than the theories as to Brooklyn slums and the imaginary confessions which the World delights to publish.

Of course, there are a certain amount of professional idiots whose parents are cousins. So, too, we find in our idiot asylums patients who owe their origin to marriages between Presbyterians and Methodists. It is clear that, if the former fact justifies a law against the intermarriage of cousins, the latter requires a law forbidding marriage between two opposite and probably equally excellent sects. Moreover, idiots have been produced in quantities far in excess of the demand by parents having no natural or religious affinity. If the Michigan Legislature really wants to strike an irresistable blow at idiots, it should forbid marriage entirely. Surreptitious idiots would, of course, from time to time make their appearance within the borders of the State, but the regular sources of supply would be cut off, and the people would have to import their legislators from other States.

If the cousins of Michigan are wise, they will collect statistics showing that not one of the members of the Michigan Legislature is the offspring of cousins, after which the Legislature can no longer with any consistency maintain the preposterous theory that idiots are the results of cousinly intermarriage.—[*New York Times, April 25, 1877.*]

For these and kindred reasons, Mr. President and gentlemen of the society, I think that self-respect demands that we discontinue our efforts to fraternize with the Legislature, and therefore hope the resolution will prevail.

The resolution was unanimously adopted amid much enthusiasm.

Resolutions were then adopted, of thanks to the proprietors of the opera house, for the free gift of its use to the society; to the representatives of the public press, for their excellent reports; to the physicians who tendered receptions to the society, for their hospitality; to Mrs. Dr. Garcia, for the floral decorations of the hall.

The Committee on Nominations made the following report, which was adopted without dissent:

First Vice President—John B. White, Saginaw.
Second Vice President—T. A. McGraw, Detroit.
Third Vice President—H. B. Barnes, Ionia.
Fourth Vice President—T. H. Briggs, Mattawan.
Recording Secretary—G. E. Ranney, Lansing.
Treasurer—Gordon Chittock, Jackson.

Delegates to the American Medical Association.—G. K. Johnson, Grand Rapids; Foster Pratt, Kalamazoo; J. H. Jerome, Saginaw; S. C. Woodman, Paw Paw; E. W. Jenks, Detroit; W. F. Breakey, Ann Arbor; J. W. Hagadorn, Lansing; J. P. Stodard, Albion; E. B. Ward, Laingsburg; E. Cox, Battle Creek; E. S. Dunster, Ann Arbor; E. W. Topping, De Witt; O. E. Herrick, Greenville; B. Barnum, Schoolcraft; James E. Ferguson, Bangor; E. Twiss, Athens; C. W. Backus, Three Rivers; M. W. Tomlinson, Battle Creek; H. F. Ewers, Union City; C. H. Lewis, Jackson, Dwight Nims, Jackson; Wm. Brownell, Utica; C. V. Tyler, Bay City; David Inglis, Detroit; H. O. Hitchcock, Kalamazoo; F. K. Owen, Ypsilanti; — Montgomery, Marshall; H. C. Wyman, Blissfield; T. J. Langlois, Wyandotte, and A. G. Sinclair, Detroit.

The Committee on Admissions reported Dr. D. C. Hawkshurst, of Battle Creek, eligible for membership. Dr. Jerome asked if the applicant were not a graduate of Michigan University. Being answered in the affirmative, he said that he opposed his election on the ground that a resolution respecting his professional standing and that of his whole class was now pending before the State Society, and before the American Medical Society. Until that was settled he moved to lay the application on the table.

Dr. Brodie replied that the applicant was among the first at this meeting, and his name was withheld just because this resolution on the University question was pending, but the society had laid the matter on the table for another year, and there was no guarantee that it would not be so disposed of for an indefinite period. Until it was authoritatively settled no one could be justly excluded on that ground.'

Dr. Hawkshurst was admitted on a rising vote by a considerable majority.

Dr. Carstens, of Detroit, called up his amendment, offered last year, providing for the appointment of committees to furnish and arrange papers for discussion at the annual meetings of the society, and the same was adopted.

Dr Brodie moved that when the society adjourn, it adjourn to meet in Lansing. Carried.

Dr. Dunster, of Ann Arbor, moved that the secretary be instructed to publish with the transactions of this meeting, a copy of the constitution and by-laws. Carried.

The president was authorized to call the next meeting of the society so as not to conflict with the meeting of the American Medical Association. The president and secretary were also authorized to appoint delegates to that body if its session in 1878 should be prior to that of the state society.

Dr. Hitchcock offered the following resolution, which was adopted:

"*Resolved,* That the secretary be instructed to report to the American Medical Association the action of this society and the action of its judicial council, upon the resolution introduced here by the Kalamazoo Medical Society, and request that that body, through its judicial council, take action upon the same."

Dr. G. K. Johnson, of Grand Rapids, read a paper on "The State and its Relations to Medical Education."

Dr. Johnson argued to sustain the following points:

1. The State should not undertake to teach medicine, because it is a work that should be left entirely to medical men.

2. It is wrong to tax the people in support of medical schools where all systems of practice are not represented.

3. Michigan was the first and for sometime the only State supporting a public school of medicine, notwithstanding the fact that there were already sixty-five schools in the United States supported by the profession.

4. There is no public or professional need for State schools of med-

cine, as the volunteer schools provide all the practitioners there is room for; hence it is wrong to tax the public for their support.

5. Medical education has a more normal and legitimate development when left to medical men, uninfluenced by the State or the action of its representatives.

6. The State, by giving free medical education, is drawing young men from industrial pursuits into a profession where they are not needed, the ranks being already crowded with graduates from regular schools.

7. Already other schools and systems of medical education are clamoring for admission to the State University, and if the State continues to give free education there will be no end to the "pathys" and "isms" demanding a hearing.

The paper was referred with the thanks of the society.

Dr. W. F. Breakey, of Ann Arbor, read a paper on "The Induction of Premature Labor as an Obstetrical Procedure."

Referred with vote of thanks.

Dr. Johnson submitted the following resolution, which was adopted:

"*Resolved*, That the State should not engage in the business of teaching medicine. It should not establish medical schools with public funds, nor maintain them in whole or any part by taxation upon the people; nor should it determine by law what principles and practice shall be taught."

Dr. Dunster was called on to make some remarks on a subject of his own choosing, but declined, owing to the lateness of the hour. He was requested, by vote of the society, to furnish next year a paper on "The Topical Treatment of Chronic Dysentery," on which he had hoped to speak at the present meeting.

The secretary read the following letter:

ANN ARBOR, May 9, 1877.

To the Michigan State Medical Society:—From his couch of sickness the undersigned respectfully sends greetings and begs to offer the following sentiment, viz.: That, with charity for all, he trusts that your deliberations will be strenuously directed to the maintenance of an unequivocal professional purity, and the advancement of legitimate medical sciences.

But no profession in the latter can atone for the loss of the professional integrity and honor.

I have the honor to be
Yours, very respectfully,
A. SAGER,
President elect.

Adjourned *sine die.*

CONCLUSION.

By those who have attended in years past, the present was considered one of the most successful meetings in the annals of the society. The papers presented were of a high order of merit, and some of them of great scientific value; the discussions were necessarily brief on account of the press of business, but the words spoken were to the point; the business was quickly dispatched, but with no undue haste; the best feeling prevailed throughout, and every one departed with their determination strengthened to subserve in every way personal preferment and selfish ambition to the cause of manly medical practice and manly intercourse with his professional co-workers.

The Wayne County Medical Society.

DETROIT, April 5, 1877.

The President, Dr. Wm. Brodie, in the chair.

Dr. P. Klein, of Detroit, having returned from Chicago, gave a description of a disease which commenced at the Madison House, in that city, about six weeks ago. Thirty cases with three deaths have been reported at this house, but none elsewhere. The patients usually complain of much lassitude, myalgia, and headache for several days, then a chill, often very severe, followed by high fever, rapid pulse, restlessness, myalgia, looseness of the bowels, mental aberration or coma, but no eruption nor sordes. A lady there had the usual premonitory symptoms for several days. She took a long walk in the morning, as was her custom, but was hardly able to get home. She had a very long and severe chill—could scarcely get her warm—followed by fever. She was semi-comatose for seven days, and then comatose till death, on the fourteenth day. The temperature was from 104° Fah. to 107° Fah., and the pulse 120 to 160, and at times still more; very restless; and discharges involuntary. Four days before her death, her back became quite rigid, and the last two days she could not swallow. She died very quietly. The treatment was similar to that for typhoid fever. Towards the last, woolen cloths, out of hot milk, were applied to the body with temporary benefit.

For some time before the outbreak of the fever, and during its continuance, a very disagreeable odor was noticeable in the Mansion House. After much delay and many surmises as to the cause of the odor, and of the disease, the sewers were opened and found to be clogged, so that the sewer gases passed into the various parts of the house, through its numerous waste-pipes, which do not appear to have been duly provided with suitable stench-traps.

Drs. Brodie, Gustin, Richards, and others, reported similar cases which were supposed to arise from like causes. It appears that the sewer between Jefferson Avenue and Larned street, and Brush and St. Antoine streets, in this city, is not deep enough to duly drain the cellars in that vicinity. Several cases of fever—blood poisoning, similar to those in Chicago—have been observed here, and are probably due to the defective sewers.

Dr. Lichty has seen many cases of fever, similar in symptoms, to those at the Mansion House, in the Mississippi valley. They were there called typho-malarial fever, supposed to arise from stagnant water, and lasted from ten days to six weeks.

Dr. Gustin reported a case of irregular remittent fever, in which very severe chills of three or four hours duration, followed by a similar period of profuse perspiration, recurred at very irregular intervals. Quinine produced no favorable results. The fever lasted about four weeks, but presented no typhoid symptoms. He also reported the history of a patient that had been peculiarly afflicted; it having had diphtheria in January, intermittent fever in February, chicken-pox in March, and scarlatina, now in April.

W. H. ROUSE, M. D,
Secretary.

DETROIT, April 19, 1877.

The President, Dr. Wm. Brodie, in the chair.

Dr. Leonard had seen a boy, aged three months, with a supernumerary tongue about half an inch long.

Dr. G. B. Book reported the following: A man aged 26 years, has been suffering from a mania for sweet food—pound cake being his favorite—for about two years. His appetite is good. He will eat enormous quantities of sweet cake, vomit it up, and then eat more; yet, on one occasion he fasted three days rather than eat anything but sweet food. He is very nervous, pale and dropsical in appearance. The tongue is red and but slightly coated. The urine is free, saccharine, and of high sp. grav., and his bowels are regular. He is increasing in weight but is very despondent.

Dr. Klein saw a girl aged twelve years in Canada, some years ago, who had always lived on sweetened milk. She was then remarkably fine, plump, healthy and strong. During the sugar season in the south, the laborers who eat freely of saccharine food, became fleshy, thus showing that sweets of themselves do not induce emaciation.

Dr. Mulheron reported the following cases: A lady, aged 25 years, had severe and increasing headache for three days, when she presented the ordinary symptoms of acute meningitis. The temperature was 105° Fah. to 106° Fah. Potass. bromide ergot, ice and blisters were used, but the woman became comatose, and died.

A lady had suffered from cystitis for three years. There was frequent desire to urinate, but ten grain doses of benzoic acid very promptly relieved this difficulty. He has found benzoic acid to work like a charm in cystitis.

Dr. Borrowman was attending a lady in the eighth month of gestation for protrusion of the bladder. The child is very low, but the bladder can be replaced after the recumbent position has been maintained for some time. The urine has to be removed with a catheter.

Dr. Lyster: A lady at six months of gestation had severe convulsions, but chloral hydrate suppositories quieted her some.

In the afternoon of the same day he bled her freely with apparent benefit. In the evening the arm bled freely before it was noticed, and thus rendered the patient very weak, with irregular breathing. The labor was completed, and the woman became conscious next morning. She has been improving since, has a good appetite, but very severe headache.

A girl, aged 14 years, passed a lead pencil, 5½ inches long into, as she supposed, the bladder, about four weeks ago. There was considerable pain and some fever. Gave her quinia sulph. gr. xxiv, the day before operating. Anæsthetics were administered, and then failing to remove it, per bladder or vagina, an incision two or three inches in length was made in the abdomen through which it was extracted. Its sharpened end was directed upwards towards the liver. The girl soon recovered without peritonitis or other trouble. The pencil probably passed through the vagina in front of the womb. Deaths have been reported from introducing instruments to induce abortion.

A child of eight years had the symptoms of inflammatory croup. He used lime-water with steam atomized twenty minutes each hour, and gave three grs. quinine every 2½ hours for 48 hours with wine of ipecac, as occasion required. Portions of membrane were thrown up, and the child recovered. He used similar treatment ten years ago on a child sixteen months old, with favorable results.

W H. ROUSE, M. D.,
Secretary.

Detroit Medical and Library Association.

MARCH 19, 1877.

Vice-President Gilbert occupied the chair.

Dr. Cleland introduced a patient afflicted with freckles.

The case was remarkable from the fact that the spots were very thickly scattered over the face and neck, and were generally of a yellow color, but there were quite a number of a dark brown color, and all were rapidly assuming this hue, threatening a permanent and very revolting disfigurement.

Dr. McGraw read a paper entitled "The Conservation of

Vital Force an Essential Element of Conservative Surgery," which was referred to the Publication Committee. [Published in this number of the JOURNAL.]

PROPHYLAXIS OF SCARLET FEVER.

Dr. Chapoton said that in a public institution with which he was connected, and containing about forty children, a case of scarlatina appeared on the 1st of February, on the 3d a second case, on the 5th a third case. The second case was a severe one. He immediately commenced the administration of the sulpho-carbolate of sodium, giving five grain doses to the smaller children and ten grains to the larger. On the 8th of the month the fourth case appeared, and was of a very severe type. On the 11th the fifth and last case—a very mild one—was reported. An attempt was made to isolate the sick children, but the isolation was not complete—there was intercourse with the rest of the house. He did not feel sure that an epidemic had been stopped by the use of the sulpho-carbolate of sodium.

Dr. Cleland remarked that in his practice all methods of prophylaxis had failed. He had faithfully tried all that had been proposed and found them wanting.

Dr. Shurly expressed a like opinion. As regards the spread of an epidemic, he believed it depended greatly on the force of the specific poison. In a mild epidemic this had a less aggressive power, and fewer children were attacked. The reverse was true in severe epidemics.

Dr. Stewart believed that isolation was the best prophylactic. Medicines were failures when used for that purpose. In deference to the wishes of the mother he once gave tinct. card. co. to a child exposed to scarlet fever, and the disease was not contracted, but no one would claim that the medicine prevented it. Oiling the patient along with the most rigid isolation was the only true and successful prophylaxis.

Dr. Connor believed a combination of sulphite of soda and carbolic acid was sometimes good. No medicine, however, was of any value which was not a perfect antizymotic. Isolation should also be enforced. In his opinion there was more danger to the community from scarlet fever than from small-pox. It would be right to place a sign on every house where a patient lay sick with scarlet fever, and enforce a more complete isolation than is carried out with small-pox in this city, and the disease might be stamped out.

He also believed it would be a wise proceeding to expose children to scarlet fever during the prevalence of a mild epidemic. They would thus be protected against severe epidemics.

Dr. Mulheron asked Dr. C. if he thought it good practice to expose children to a mild form of scarlet fever. Would they not oftentimes contract the malignant type of the disease.

Dr. Connor replied that he believed like always produced like, all things being equal. So, if a certain number of children in like condition of health were exposed to a mild form of scarlatina they would probably have a mild type of the disease. If the facts were known, it would probably appear that children who seemed to have taken a malignant from a mild form of the disease had been exposed to the former type.

Dr. Mulheron thought the theory was a very fine one, but he did not believe it was true, in practice. He had seen a severe type of scarlatina follow a mild type in the same family, and that, too, when they had been carefully kept at home.

Dr. Cleland stated that he had attended recently a delicate, weakly child, sick with scarlatina of mild type: but a brother of the patient, a strong, robust child, was attacked by a very malignant type of the disease and died in two days.

Dr. Carrier had used the sulpho-carbolate of sodium with good effect, both internally and as a gargle. There had been no swelling of the glands and no sequelae when thus exhibited. He was not satisfied with it as a prophylactic remedy. He knew the very day when his own boy was exposed to the fever, but did not ward off the attack by the use of the sulpho-carbolate of sodium. He also knew a gentleman who purposely exposed his child to the disease, but it was not contracted, this remedy having been administered.

Dr. Stevens said he had recently attended three cases of scarlatina in one family, the two first being of a very mild type. The third child was attacked with convulsions and died in twelve hours. Although no rash appeared he considered it a case of scarlet fever, as the child was not subject to convulsions, and there was no other apparent cause of the phenomena.

Dr. McGraw said some process of preparation for the onset of scarlet fever might be useful. Before severe surgical operations the patient was put on what is known as preparatory treatment in order to lessen as much as possibly the inflammatory processes. Robust children were often in a condition of system to favor inflammation on account of the great activity of the vital processes and would have a very malignant form of scarlet fever, while in weaker children the conditions were exactly the opposite. This would in a measure account for the different types of the disease in different children when exposed to the same contagion.

THEO. F. KERR, M.D.,
Secretary.

Correspondence.

Treatment of Croup.

CENTER, Shelby Co., Texas.
April 30, 1877.

MESSRS. EDITORS.—In the report of the Detroit Academy of Medicine (February number of your journal), I notice a discussion upon the unity and duality of diphtheria and croup, which leads me to give your readers the treatment of a backwoods country doctor. I am not prepared to say whether they are one and the same disease, or whether they are distinct diseases having a similar local manifestation. I class all inflammations of the larynx attended with a false membrane under the broad name of true croup; nor do I claim that my treatment is altogether scientific, but that it will relieve this fearful malady many grateful mothers and suffering children will testify.

When called to a case of true croup in the early stage I usually administer a purgative dose of calomel. After it has acted prepare the following prescription: Quinia sulph., sulphur flors, chlorate potassa, aa. grs. xii; mix well, and divide into twelve powders. Give one (to a child three or five years old) every two hours in slippery elm mucilage, or mucilage acacia, or tragacanth. If the dyspnœa becomes urgent, I use cloths wrung out of the coldest water I can get, applied constantly to the chest until the dyspnœa subsides. If the false membrane is extensive, I use argenti nitras grs. x, aqua pura, ℥i applied with a mop freely over the membrane once in six hours, if it is not extensive, once in ten hours I think sufficient. When the swelling in the throat is very great I vomit my patient with zinci sulph., grs. ii to iii; repeat the dose every ten or fifteen minutes until vomiting takes place

I do not allow the child to be housed up and hovered over the fire, but give it plenty of fresh air. I believe nature teaches us this, for when we see the little fellows panting and gasping for breath, we should by all means allow them a full supply of that material (oxygen) so necessary to their existence.

If denied, we see them turn black (as it is termed) in the face, which is proof to me that the blood is not being properly oxygenated. After the false membrane disappears and the cough is still crowing, I leave off the cautery and emetic, but keep up the quinia and potash powders, at longer intervals, for some days afterwards, giving also some of the iron preparations.

Now, reader, I do not ask you to take my statement as true, but try it and be convinced of the truth of what I have written.

Respectfully,
Jas. W. Rogers.

Medical Gossip from Berlin.

Berlin, April 27, 1877.

The University Eye Clinic.—For the following historical sketch of this clinic and its present director I am indebted to *Das Medicinische Berlin*, by Dr. J. Rigler, from which it is translated. After the resignation of Prof. Juengken, Prof. von Graefe, who had for a few years had charge of forty beds for eye diseases in the Charite, was called to the directorship. This position he held till his death, much, of course, hindered by his sufferings, against which his energetic will in vain had striven. Graefe died in July, 1870, of consumption. The clinic was maintained temporarily by Dr. Smith, then Professor at Marburg, till April, 1871, when Prof. Schweigger was appointed to the vacancy. Clinical lectures and operations take place four times in the week for one hour a day. It is stated by Dr. Rigler, above mentioned, that at the time of writing, 1873, there were accommodations for from forty to sixty patients in the wards of this clinic, but that they were thinly occupied; and that also the policlinic, which was then associated with the clinic, was for local reasons, not much frequented. As to the present status of these matters, I can only speak of the latter. It is separated from the clinic, and situated on Marien street, but five minutes walk from the Charite, and is generally quite thronged. The difference between a policlinic and clinic is not very great, and not quite in keeping with the difference in meaning indicated by the names. The former is for out patients, the latter for those who are obliged to remain under the eye of the surgeon. Of course in both places all diseases of the eye may be seen, but in the clinic those of a graver character are found.

Prof. Schweigger was born in October, 1830, in Halle, and is therefore at the present time 47 years of age. He studied in Erlangen and Halle, and was, after he passed his state examination in 1852, assistant, first to Krukenberg, and later—from 1857–65—to Graefe. After considerable traveling for the purpose of scientific inquiry and observation, he settled down in Berlin. In 1868 he was appointed Professor of Ophthalmology in Gœttingen, and in April, 1871 in Berlin. Besides numerous smaller writings which appear in the *Archiv. fuer Ophthalmologie*, Schweigger also wrote a "Handbuch der Augenheilkunde," in 1871, and "Vorlesungen ueber den Gebrauch des Augenspiegels," in 1864.

It appears from this little biography that Prof. Schweigger was 22 years old when he graduated as a *practicing physician*, that is to say, when he passed the examination required by the state. It is remarkable what a contrast exists between Germany and America in respect to the caution observed in sending young men out into the world as physicians. It matters not from what school they have received their medical education, the state interposes her hand against any unqualified person being sent amongst its unsuspecting citizens to receive their confidence and deal with their vital interests Recognizing the inability of even very intelligent people to discriminate between the medical charlatan and the properly qualified physician, she comes to their rescue by putting the stamp of her recognition upon the papers of those who have passed the examination required by law. But even the Universities, notwithstanding their examinations are ignored by the state, require thorough training on the part of the candidate for graduation, and in pronouncing upon his qualifications for the duties of physician, recognize four grades of proficiency, one or other of which he finds indicated upon his diploma. This is the precaution and care exercised against medical imposture in a land where medical schools are not mere mills, whose existence, like that of a mercantile establishment, rests upon how much grinding they get to do, and which are, in the struggle against competition, obliged to attract business by offering improper inducements. On the other hand, in America, where medical schools are exactly in this position, notwithstanding some of them are supposed to be liberally sustained by the state, where, I say, medical schools are mere business enterprises, and prosper or otherwise just in proportion to the patronage they can attract, where they are obliged, as it were, to offer great bargains to those contemplating the acquisition of medical lore, and where, in the extremity of their need, they have, in some cases, become dishonest, and resort to palming off, through the shallow-brained doctor, a shoddy article of education upon the unsuspecting world, where such a state of things exists, the state has made no provision for the protection of its citizens, ignoring the constant calls of the profession on behalf of the people and of themselves for such protection; but on the contrary, not only does it remain inactive in the matter, but by its direct action to defeat any effort to remedy the evil, as lately took place in Michigan, assumes the relation of accomplice in the inhuman work. Well may it be said that intelligent people are incapable of discriminating between the learned physician and the quack when representative men—not only in politics but in learning—occupy such a position in this relation. What the result is to be finally no one can say now, but at present, in spite of our boasted American enlightenment, there is a ban upon this branch of scientific development, and those who deal in witchcraft, mediumistic healing, clairvoyance, and this species of humbug, are not only not hindered by the state, but to some degree actually fostered.

Further, one will be struck by the fact that Prof. Schweigger was thirteen years assistant to eminent men in ophthalmology before he was appointed to any position as a teacher, and this is no individual exception to the rule of appointments in Germany. We find, on the contrary, that in nearly all cases those who are selected to fill the important place of teachers, are men who have shown already considerable ability, and who have had time themselves first to learn something of what they profess to understand. In fact, if a man has not brought himself to the surface through his own ability, so that he is already heard of and known not only to the medical profession but to the secular authorities of the land, he can never hope for advancement here.

It is to be hoped that the time will come ere long in America when this rule will be observed. The interests of society and of science and our common sense of decency go hand in hand in asking, in pitifully begging, that medical interests with us be placed on a far more substantial basis than at present, and that State schools should be enabled to subsist without regard to the number of students in attendance, that they should be supplied with the very best teachers and facilities for teaching, and finally be compelled to send out only men who have learned well what they have been taught. As at present in Canada, in Germany, and perhaps in other countries as well, which we are in the habit thinking behind us in the march of progress, every State should have a board of examiners whose duty it should be to test the standing of all persons alike who desire practicing medicine within its borders, without regard to where they graduated or the possession of a diploma.

As to the advantages of studying diseases of the eye here, I believe it is generally admitted by oculists in Germany that, ophthalmology stands as high and has as good workers in America as in any other country. They are not many of course in proportion to the population, but enough for the purpose of those who want to study this specialty. During my attendance at the "charite" eye clinic, I saw about the same class of patients that had come under my observation at the Michigan University clinic, and the treatment they received, was also substantially the same. For the last four months I have been visiting daily the clinic of Dr. Herschberg, where a greater variety of diseases and a great abundance of patients appear, affording one of the best opportunities of studying this class of affections and their treatment. Not the least important thing to be noted here, is the thorough system observed in the clinics in examining patients and recording their condition for future reference. It teaches a valuable lesson to one who, like myself, and in fact most American students who graduate outside our large medical centres, has not had an opportunity of observing it. For instance, in the clinic of Dr. Herschberg, along with the history of the case are kept maps of all the structural changes of the fundus of the eye, whether subjectively or objectively detected, and no case however simple is thought too trifling to keep exact record of in all respects. Thus it is that such men can make there experience of value to the world, being enabled from these accumulated records to give valuable generalizations in relation to the history, prognosis, treatment etc., of the diseases with which they deal. In fact, these records, insignificant as they appear in themselves, are the foundation stones upon which the science of medicine has been built, upon which it now firmily rests and the source from which all its important contributions are derived. But this is not the only value of such a method, for it also exercises an important influence upon the physician, for he who keeps correct records, must be capable of making exact differential diagnosis, which again demands exact study and observation. This method is, of course, practiced also in many clinics in America, but it is certain that three-fourths of the graduates of American schools have but a very faint idea on leaving their alma mater of either why or how it is done. This is due to the fact that in many schools there are no facilities for patients, and in none is the course long enough to allow the student time for clinical observation. It is indeed impossible to teach medicine in twelve months of college life, which is all the regular training the American student receives. Such a thing is preposterous to think of, and a diploma which asserts the qualification of one, who has taken such a course, to practice medicine, bears a falsehood upon its face, and is a disgrace to the man who bears it. It cannot be that American students are prodigies of intellect while the students of other nations are dunces—that the former can accomplish as much in two semesters as the latter can in eight. No one will believe this; no one does believe it; and therefore are we as a rule held in light esteem abroad. I am proud to learn that Michigan University has again taken another of the progressive steps by which her history is marked—but this time one of prodigious length—in adding three months to each years course of medical studies. Thus, in one act, she has made herself an object of interest to the earnest student, an object of emulation to other schools and the pride of her friends at home and abroad.

The clinics have been for a few weeks closed, but in a few days will be open again. I will write of Langenbeck's clinic in my next. R. J. P.

Abstracts From Exchanges.

Pathology.

THE BLOOD IN ACUTE YELLOW ATROPHY OF THE LIVER. (*Wiener Med. Wochenschrift*, 1876. *London Med. Record*, Nov. 15, 1876.)—Matterstock found in the first of two cases of acute yellow atrophy of the liver, that the white corpuscles of the blood were greatly increased in number, being in proportion of one to twelve red. In the second case, the white conpuscles were also somewhat increased, but the chief changes were seen in the red corpuscles. They were all abnormal in aspect, but two principal forms prevailed; one the mulberry; the other, the stellate. Four to eighteen processes were seen at the border of each corpuscle; no movement or clearage of the corpuscles could be made out. The corpuscles which showed no processes looked swollen and pale, as if acted on by water. With these changes also appeared those which always take place when blood is drawn from the vessels, and which are usually attributed to dilution with water, or cooling of the blood (Rollett.). These corpuscles appeared smaller than the rest, contracted and with more minute processes. They appeared in groups or singly among the larger corpuscles. In the first case the same appearances were seen, but much less marked in number.

Matterstock thinks that those changes are not due simply to the removal of the blood from the vessels, but yet he does not affirm that those altered forms circulate in the blood. These changes are not due to the high temperature of the latter, as that never rose above 101.3° F. Nor are they due to the bile-acids,for the latter destroy the corpuscles suddenly and completely. In uræmia, the latter are quite natural in shape. There are many points in common, in conclusion, between the appearances seen in these corpuscles and in the monad-containing corpuscles of Hueter, but they differ, as the corpuscles from the jaundiced patients showed no to and fro movement. (*Monthly Abstract*, Jan. 1877.)

Editorial.

Notice to Correspondents, Etc.—Communications intended for publication, and books for review, should be addressed to "Editors of Detroit Medical Journal, care of E. B. Smith & Co., Detroit."

All remittances of money, all letters on the business of the JOURNAL, pertaining to subscriptions or advertisements, should be addressed exclusively to the publishers, E. B. Smith & Co., corner Fort and Griswold Streets, Detroit, Mich.

Original Articles, Reports of Medical Societies, Observations, Correspondence, News, etc., of general interest, are respectfully solicited from every source. Articles should be practical and carefully prepared.

The Editors will not be responsible for statements made over the names of contributors.

Memoranda.

The Parisians, during 1876, ate 9,271 horses, asses and mules; an increase over 1875 of nearly three thousand.

Dr. J. W. Freer, professor of physiology and president of Rush Medical College, died on April 20, aged 61.

Dr. Eugene Smith has been appointed ophthalmic and aural surgeon to St. Mary's Hospital of Detroit.

The Medical Department University of Pennsylvania has decided upon the following changes in its teaching: Each student is required to attend three courses, five months each, to be examined for admission, and also at the end of the five month's year. The order of studies is graded—first year, botany, chemistry and working in the chemical laboratory; second year, anatomy, physiology and materia medica, and the third year, therapeutics, physical diagnosis, surgery and obstetrics. The classes are not to exceed sixty. Each professor is to be paid a fixed salary of $3,000. The chemical professors are in future to rank with the regular medical faculty. The chair of Chemistry is vacant, owing to the resignation of Dr. Robert Rogers, who has accepted a similar position in Jefferson Medical College. F. Gurney Smith has resigned the chair of Physiology and Prof. John Neil that of Clinical Surgery. It is said that these resignations have no relation to the above changes.

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Clinically it is well known that various disorders of the abdominal organs are attended with a condition of melancholia. The intelligence is unaffected but the patient seems to see every thing through blue-tinted spectacles. Various researches render it evident that in some way these visceral disorders produce an anæmic state of the posterior cerebral lobes. Fothergill (page 467 Hand-book of Treatment) calls attention to the curious vaso-motor supply of the posterior cerebral lobes. These lobes are mainly supplied by the vertebral arteries, while the anterior lobes are supplied by the carotid arteries. The latter receive their vaso-motor nerves from the superior cervical ganglion, the former from the inferior cervical ganglion. The last ganglion is in very intimate connection with the thoracic ganglion and spanchnic nerves which supply the abdominal viscera. Cyon has traced nerve fibres from the vaso-motor centre down the vertebral arteries, through the inferior cervical ganglions, the annulus of Vieussens, the thoracic ganglion to the splanchnics of the liver. Admitting that fibres from the viscera to the nerve centres, follow the same route, we can understand how disturbance of the abdominal viscera can produce melancholia without obviously affecting the intellect. The abdominal disorder produces arterial spasms, and so anæmia of the posterior lobes, and so melancholia. The obvious deductions are self-evident.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Ziemssen. Vol. II. Diseases of the Chylopoetic System, together with Diseases of the Nasopharyngeal Cavity and Pharynx. Cloth, pages 1,046. 1876. New York: William Wood & Co.

In the first one hundred pages Dr Herman Wendt discusses "Diseases of the Nasopharyngeal Cavity and Pharynx." Then follows a careful study of "Diseases of the Stomach and Intestines," by Prof. W. O. Leube, occupying three hundred and seventy-four pages. Constrictions, occlusions and displacements of the intestines" are treated by Dr. Otto Leichtenstern in about seventy-five pages. Helley devotes seventy-pages to the consideration of "Intestinal parasites." Von Ziemssen occupies about two hundred pages with "Diseases of the larynx." I. Steffen closes the volume with an ample consideration of "Spasm of the glottis." Thus it will be seen that one third of the entire book is devoted to diseases of the pharynx and larynx, and two thirds to diseases of the intestinal canal.

The translation and mechanical execution of this volume is uniform with its predecessors. All we have said of them applies with equal truthfulness to this.

Wendt, in describing the relations of the pharynx to the ear, directs attention to Lucae's observation "that when the nostrils are occluded the air in the middle ear becomes rarified by each act of swallowing." "In this way purely mechanical deafness may be produced in an otherwise healthy ear." In the escape of gases from the stomach there is a sudden condensation of gases in the nasopharyngeal cavity. Not unfrequently this air passes into the middle ear. If irritating in its nature, inflammation of the Eustachian tube and middle ear follows. At any rate, if often repeated, an abnormal condition of the parts is slowly brought about, and hearing lost or hopelessly impaired. Chronic stomach disorder has a demonstrable connection with diseases of the pharynx, nerves and middle ear. So, too, the habit of breathing through the mouth is a condition of serious disorders of the same parts. Every child should be taught to keep its mouth shut when not talking or eating, and its nares clean and open. The latter is easily accomplished by the daily snuffing of salt water through the nares.

Most persons forget that the glosso-pharyngeal nerve supplies both the lower pharynx and tympanic cavity. This disease in the middle ear may be attended by a cough or a pain in pharynx, or the reverse. In short, disease of the ear may have symptoms mostly referable to the throat, or vice versa. The symptoms, pathology, diagnosis and treatment of the various naso-pharyngeal affections are presented with great clearness.

Leube preceeds the discussion of gastric and intestinal diseases by a brief consideration of the anatomy and physiology of the various organs. A thorough knowledge of the structure and functions of the intestinal tract he rightly regards as absolutely indispensable to the investigation of its diseases. With Broussais, he regards transitory dyspepsia as gastric catarrh, and so the causes of the former as causes of the latter. These irritants acting directly upon the gastric mucous membrane, excite it to inflammation. The more sensitive the stomach the more apt are slight errors in diet to induce a gastritis. Thus infants accustomed to mother's milk are very intolerant of all other substances. Again, the retention of food in the stomach for two long a time, may cause inflammation. Persons suffering from anæmia or fever, or malnutrition, contract gastric catarrh most easily. Experiment has proved that in all these cases there is a decrease in the production of gastric juice, and particularly of the acid element. Besides the muscular coat is so weakened that the evacuation of the stomach is delayed. For these reasons the food is delayed in the stomach and catarrh ensues.

Most cases of acute gastritis are best treated by a regulation of the diet. In more serious cases it is advisable to cause the patient either to fast or to take nourishment by the rectum. If this course is not pursued a bland, easily digestible diet may be ordered, should these remedies fail, we must remove from the stomach food that is retained too long. This is best done by the stomach pump, or if inadmissible by emesis or catharsis. If acid be lacking it should be administered in water.

Sporadic cholera, cholera morbus and cholera infantum are caused by the action of certain irritants, and particularly by that of fermenting food. In this way the nerves of the gastric and intestinal parietes become irritated to a high degree and thus give rise to excessive peristaltic action of the intestines and vomiting. Among the causes of chronic gastritis Leube places the causes of acute gastritis when these are oft repeated or continuous, the excessive use of concentrated alcoholic liquors, various obstructions to the portal circulation, and diseases of the heart and lungs. The diagnosis of chronic gastritis is an easy matter. But it is very difficult to always refer it to its true origin. Unfortunately most physicians scarcely attempt to solve the problem, but content themselves with prescribing for the most troublesome symptom. Among the symptoms of dyspepsia are certain variations from the normal standard in the composition and transformation of the contents of the stomach. The acid eructations of so many patients contain butyric acid, lactic acid, carbonic acid and hydrogen. Secondarily other acids are produced. At other times an alcoholic change occurs in the transformation of carbohydrates in the stomach, producing carbonic and acetic acids. These fermentative processes are initiated partly by ferments introduced into the stomach from without, and partly by the contact of carbohydrants with putrefying albuminous substances. These changes would be impossible were gastric juice present in its normal quantity and quality. In many cases-hydrochloric acid is lacking, in others pepsin and in others still there exists an excessive accumulation of peptones in the stomach. Depression of spirits or unusual mental excitement may also cause disturbance of the digestive proeess.

The treatment given is based upon the each particular cause. If fermentation occur in the stomach it must be stopped. This has been attempted by carbolic acid and analogous remedies but the most successful remedy consists in emptying the stomach up or down. The best means is the stomach pump.

Mild cases may be well treated by securing an easily digestible diet. The oils, fats, sugars and starches should be taken sparingly. Milk, meat or eggs, in some form, should form the staple diet. The use of bitters, alkaline mineral waters, is well presented.

This chapter alone is worth the price of the entire book, especially if it should compel the reader to look at the facts bearing on the subject as presented by modern physiology.

Gastric ulcer is a common disease, fourteen thousand autopsies showing an average frequency of about *five per cent.* The latest researches show they result from one of two causes. (1.) Diminution of the normal alkalescence of the walls of the stomach. (2.) Abnormal increase in acidity of gastric juice. The diagnosis of gastric ulcer is very difficult in sickly chlorotic girls or women. Leube finds that it is best to begin the treatment of such cases as if gastric ulcer were present. If the disease were not considerably benefited by this diet the existence of an open ulcer was excluded and the case treated as one of anaemic dyspepsia.

Lack of space forbids further illustration of the very practical character of this volume. Taken as a whole we have never read a more satisfactory account of the various diseases discussed. Omissions occur here and there, misstatements are few, style of authors and translators clear and readable. L. C.

THE TONIC TREATMENT OF SYPHILIS. By E. L. Keyes. A.M., M.D. Cloth; pages, 83 1877. New York: D. Appleton & Co. For Sale by J. M. Arnold & Co., Detroit, Mich.

This monograph is based upon an article by the author in *Amer. Jour. Med. Sciences*, Jan. 1876, and a paper read at the

Centennial International Congress of '76. Other observations are added, and the whole is elaborated into a compact and lasting form.

The author well observes that all previous methods for the treatment of syphilis are essentially empirical. Nor do the empirical methods present any uniformity in the use of mercury and the iodides. "One attempts to produce salivation quickly, another slowly; another to give as much mercury as his patient will hold without becoming salivated. One gives mercury for a very short time, another in interrupted courses; the courses either coinciding with the outcrop of symptoms, or established without regard to them. The majority use mercury only during the secondary period of the disease, depending upon the iodides later; others commence with the iodides, then take up mercury, and finish with the iodides; finally, some use iodides throughout, disbelieving in mercury; and so on to the end of the chapter, each advocate of any particular plan believing that his method is the very best of all, and triumphantly referring to his cases in justification of his belief."

The author proposes a method based upon physiological experiment, inductive reasoning, and clinical observation. By using Wilbouchervitch's hematimetre he counted the number of red corpuscles in human blood more than five hundred times. The blood was taken from twenty-one syphilitic and six healthy persons. The number of corpuscles in the cubic MM. for the adult healthy male was 5,000,000. Mercury given in excess decreases the number of corpuscles. Syphilis diminishes the number of red corpuscles below the healthy standard. Mercury in small doses, given in syphilis, alone or with the iodide of potassium, increases the number of red blood corpuscles in the blood, and maintains a high standard of the same. Mercury in small doses acts as a tonic in healthy animals, increasing their weight. In larger doses it is debilitating or fatal. In human beings in fair health, not syphilitic, mercury in small doses increases the number of red blood corpuscles.

By the same method it was found that the iodides are tonic and increase the number of red cells. But when given early in syphilis they do not so greatly modify and delay the syphilitic symptoms as does mercury. By clinical observation he shows that small, continued doses of mercury or the iodides in the weight of persons in health.

How long should the general treatment of syphilis be continued? At least two years. But before commencing, the diagnosis of syphilis must be established beyond question, a thing that is impossible before the appearance of secondary symptoms. Further, ere beginning treatment, the patient should be sent to the dentist to have his teeth put in order and the tartar cleaned off; tobacco in every form should be cut off. The diet and personal habits must be carefully regulated on a physiological basis.

Beginning now with a sixth of a grain of protiodide of mercury after each meal, he increases it by a sixth each day until the gums are touched or the bowels irritated. The amount taken the last day is called the patient's *full dose*. This must be ascertained for each patient. Other preparations of mercury may be used in a similar way.

By the aid of opiates the *full dose* is continued till the active symptoms yield. The patient's dose is now reduced one-half, and is called the *tonic dose*. This is to be continued until new symptoms appear, when the full dose must be used until they vanish. The same preparation of mercury should be used continuously on the same person. Particular directions are given for the use of inunction mercurial vapor bath, for treating salivation, for the employment of the iodides in syphilis, for the use of the mixed treatment. In comparing the two remedies he says: "Mercury modifies the disease, iodine cures certain symptoms: mercury tends to prevent relapse, not so iodine. Hence iodine is to be given only during the existence of certain symptoms; when these have been controlled, it should be dropped, and mercury given. The last chapter treats of the local treatment of certain lesions, chancres, buboes, ulcers, etc.

We have been greatly interested in this little work, and commend it to the careful study of all. Certainly a positive advance is made on our old empiricism. L. C.

TRANSACTIONS OF THE NEW YORK PATHOLOGICAL SOCIETY. Vol. I. Based on the Proceedings for 1875, and Largely Supplemented from the Records of 1844 to 1872. John C. Peters, M.D., Editor. Cloth; pages, 272. 1876. New York: Wm. Wood & Co.

About sixty pages of this report are filled with a history of the origin and rise of the society, lists of officers and members. The story of the society is very instructive, in that it proves the power of even a *few* men in the profession if banded together for mutual aid in scientific study. Many years since, when a student in New York, we were greatly interested in the meetings of this society, and often wondered that among so many hundreds of physicians only about a dozen were regular attendants upon them. Perhaps the society did better work because it was small. Be this as it may, we are glad that at last the records of its work are now to be given to the world in a permanent form. The plan selected by the editor is that of the London Pathological Society. In regular order reports of cases or specimens grouped together under proper headings, viz., Diseases of Nervous System, of Organs of Respiration, Circulation and Digestion, of Genito-Urinal Organs, of Osseous System, of Special Senses, of Glands, of Skin, and Miscellaneous Specimens.

Twenty one cases of abscess of the brain are given, with notes and comments. A striking commentary on the usual indifference to continued inflammations of the ear is afforded by the records of thirty-eight cases of brain disease caused by such inflammation. As the post-mortem examinations are given and the specimens exhibited, there is no element of doubt in the picture. Every reasonable effort should be made to stop all chronic discharges from the ear. Fifteen cases of rupture of the heart are given, eighty-four cases of aneurism of the aorta, and fifty-five cases of cancer of the stomach. These last two groups of cases are tabulated in a form very convenient to analyze.

The volume is carefully indexed, and well printed on good paper. We trust that such liberal encouragement will be given to this venture as to encourage the society in a speedy publication of the remainder of its records. L. C.

ANNUAL REPORT OF THE SUPERVISING SURGEON-GENERAL OF MARINE HOSPITAL SERVICE OF THE UNITED STATES FOR 1875. By John M. Woodward, M. D. Cloth; pages, 217. Washington: Government Printing Office.

This report surpasses its predecessors in accuracy and completeness. It well exhibits the needs of the marine hospital service to best protect the interests at stake. In addition to the report proper, an appendix of one hundred pages is devoted to certain papers on "Yellow Fever," "Syphilis Chancroid," "Consumption," "Scurvy," "Seton in Paralysis and Epilepsy." The text is illustrated by tables and diagrams. The suggestions made by the Supervising Surgeon seem fitted to advance the interests involved. As a whole, the report emphatically sets forth the money value of the profession to our ocean and lake commerce. Life and health are money, and these can be best retained only by the intelligent direction of the medical profession. L. C.

THE TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Vol. XXVII. 1876. Cloth; pages, 719.

It seems strange to us that the official report of meetings of the American Medical Association should require for its publication eight or nine months. No doubt there are good reasons for this delay, but we have never seen or heard of them. As to subject matter, the volume contains very little that is new. The full section reports are, on the whole, readable and instructive, but not more so than the account of a good medical society, such as weekly meet in all our large cities.

The papers and reports on public health occupy a space proportionate to their importance.

One noticeable improvement consists in printing the minutes of the judicial council separate, and appending to it the entire list of members of the judicial council. At other times we have so fully published discussions of mooted points that we omit further notice here. We doubt not that the next meeting in June, not being disturbed by the Centennial, will prove more successful than its predecessor. L. C.

A DIRECTORY FOR THE DISSECTION OF THE HUMAN BODY. By John Cleland, M.D., F.R.S. Cloth; pages, 182. Philadelphia: H. C. Cea.

This aid in anatomical study differs from any that we have seen. There is no description of the parts, but the student is told how, with the aid of instruments in hand, he may to best advantage display and recognize the several parts. By following the directions here given the student will cultivate his powers of manipulation and observation. Thus a real anatomical knowledge will be gained, instead of a mere book knowledge. We wish it were possible to substitute this method of anatomical study for that too commonly pursued by medical students. Meantime we cordially commend this book to the study of all students and teachers of practical anatomy

L. C.

TRANSACTIONS OF ILLINOIS STATE MEDICAL SOCIETY. 1876. Cloth; pages, 270.

This book makes a fair showing for the profession of Illinois. A careful record of all discussions is presented. This, with the brief reports on various topics, makes a readable book. Of course there is nothing new, as state medical societies do not exist to develop new truth. Still, by their work of diffusing old truths and rendering them living realities in the profession, these societies deserve honorable mention and constant encouragement.

A SERIES OF AMERICAN CLINICAL LECTURES. Edited by E. C. Seguin, M.D. Vol. 2, 1876. Cloth; pages, 340. New York: G. P. Putnam's Sons.

From time to time during the past year we noticed the several lectures contained in this volume. Our estimate of their value is already before our readers. Altogether they make a volume at once useful and handsome. The subjects discussed cover quite a broad range, as, "Physiological Antagonism," "Morbid Nervous Sensibility," "Melancholia at Home." "Some Forms of Dyspepsia," "Diseases of the Eye," "The Upper Air Passages," "Tracheotomy and Laryngotomy," "The Hypertrophied Prostate," Points in the Surgery of Childhood," "Spinal

Irritation," The Treatment of Eczema," "Peripheral Paralysis." All interested in the study of any of these subjects will do well to read the views here presented.

L. C.

FIRST ANNUAL REPORT OF WISCONSIN STATE BOARD OF HEALTH FOR YEAR ENDING DEC 31ST, 1876. Paper; pages, 85.

This Board presents a good showing for its first year. Besides the general facts relating to the establishment of the board we have six articles, as follows: "Small pox and its Prophylaxis," by Dr. E. L. Griffin; "Sewerage and Drainage," by Dr. S. Marks; "Construction and Ventilation of Public Buildings," by Gen. Jas Bintliff; "Mental Hygiene," by Dr. J. Favill; "Food and Domestic Beverages," by Dr. O. G. Selden; and "Registration," by Dr. J. Hobbins. Although these contain very little original observation, they are, as a whole, carefully prepared, and fitted to instruct the laity who may chance to read them. L. C.

TRANSACTIONS OF THE WISCONSIN STATE MEDICAL SOCIETY. Paper. Pages, 150. 1876.

Mechanically considered, this report is simply elegant. Paper, type and press work are all in the best style. Beside the usual minutes of the meeting and obituary notices, it contains twenty articles. Eight of these are reports of cases. Surgery, gynæcology and obstetrics were reported on at length. Most papers were short, and practical in their bearings. As a whole, these transactions are a credit to the profession of Wisconsin. L. C.

OPERATION OF VESICO-VAGINAL FISTULA. A Comparison of the Methods of N. Bozeman, M.D., N. Y., and Prof. Gustav Simon, Heidelberg. Translated by A. C. Bernays, M. D. Reprinted from the *Richmond and Louisville Med. Jour.* Jan. 1877.

Much of the material here presented has also appeared in the London *Obstet. Jour.* In the reprint before us there are twelve plates, illustrating the text. Altogether it is interesting reading to gynæcologists.

A COURSE OF PRACTICAL HISTOLOGY. By Dr. E. A. Schafer. Cloth; pages, 304. 1877. Philadelphia: H. C. Lea.

This little work is essentially intended for the laboratory, and specially designed for the beginner. The author, being a practical teacher of physiology, has admirably succeeded in meeting the beginner's wants. Had he produced a still smaller book, and one more elementary, he would have better aided in introducing practical histology into the instruction given by medical colleges. We trust that the day is near at hand when all medical students shall be required to work at least two months in a physiological laboratory. L. C.

DYSPEPSIA. By Seranus Bowen, M. D., Harv. Loring, Boston, Mass. Pamphlet; pages, 30.

Contains nothing new, and seems to be directed to the laity rather than the profession. Its general doctrine is "that dyspepsia may always be cured unless it results from some necessarily fatal disorder."

STEDMAN AND HIS MEN AT CHICKAMAUGA By J. T. Woods, M.D, Toledo, O. 1876. Cloth; pages, 173.

This is a graphic and critical account of a part of a great battle. It is well illustrated by accurate maps and diagrams. Those interested in the study of this part of the late war will do well to examine this book. L. C.

FULL TERM EXTRA UTERINE GESTATION OF THE TUBO-OVARIAN FORM, WITH SPECIAL EXAMINATION OF THE SAC, UTERUS, AND APPENDAGES. By A. S. Campbell, M.D.

Reprinted from *Amer. Jour. Obstet.*, Oct. '76.

FUNCTION OF THE UVULA AND THE PROMINENCE FORMED BY THE AZYGOS UVULÆ MUSCLES. By Thos. F. Rumbold, M.D.

Reprinted from St. Louis *Med. Jour.*, Dec. '76.

THE RELATIONS OF THE MEDICAL PROFESSION TO MEDICAL EDUCATION. By Edward S. Dunster, M.D. Paper; pages, 25. 1870. New York: D. Appleton & Co.

A capital discussion of a very important topic.

Meteorological Report of Detroit for April, 1877.

BY C. HENRI LEONARD, M. D., OBSERVER FOR STATE BOARD OF HEALTH.

BAROMETER.—Highest, 30.420; lowest, 29.386; range, 1.034; average, 29.959. About the general average.

TEMPERATURE.—Highest, 75 (this on the 23d); lowest, 20 (this on the 3d); range, 55; average, 46. This is above the general average for the last five years. In '72 the daily average was 46.8; in '73, 42; in '74' 37.3; in '75, 40.9; in '76, 44. The thermometer fell 12° lower in '75 than this year.

WINDS.—Prevailing direction, N. E. (11 days). Greatest velocity, 42 miles per hour. Total number of miles traveled, 4,963. "Calms" at six observations. The day of least wind travel was the 22d, then but 37 miles was made. On the whole it has been a decidedly calmy month; the total number of miles made being from 700 to (nearly) 2,000 miles short of that made in the five preceding Aprils.

CLOUDS.—Clear, 11; cloudy, 11; rainy, 11. This is about the usual number of rainy days in April.

RAINFALL.—Greatest daily amount, 1.22 inches (this on the 19th). Total amount of precipitation, 3.27 inches. It has been a wet April; the total amounts being, for the past five years (beginning with '72), as follows: 2.15; 4.74; 1.39; 0.70: 1.80.

MOISTURE.—Highest "absolute," 4.41 grains to cubic foot of air; this was on the 1st. Highest "relative" at the 2 P. M. observations of the 18th and 28th. Saturation was then complete, the per centage being 100. The "absolute" at these observations were 3.88 grains, and 4.14 grains. The "relative" humidity of the 1st (when the "absolute" was highest), was but 71 per cent. This emphatically shows that the relative and absolute humidities are independent of each other. It is the "absolute" that marks the increase of intestinal diseases in children.

OZONE.—Maximum coloration, 2 (this on the 2d); 1 was reached upon eight other days. Only one day, the 23d, did it seem to be entirely absent. Note that this followed the day of least wind, hence least ærial electricity by friction.

Detroit Medical Journal.

NEW SERIES. Vol. I. } JULY, 1877. No. 7.

Original Communications.

Wounds of the Heart.

A CASE REPORTED TO THE DETROIT ACADEMY OF MEDICINE BY DR. C. C. YEMANS.

On May 31st, at about 3 P. M., John Burns, æt. about 27, Irish, partially insane, attempted self-murder by stabbing himself over the region of the heart. I saw the patient five minutes after the injury, and found him in the following condition: Cyanotic, pulseless, no appreciable heart beat, stertorous respiration—simulating epilepsy, and nearly comatose. I ordered him placed on a stretcher and removed to hall. Five minutes later the patient's symptoms were much the same. By auscultation I detected hæmorrhage, either from parenchyma of lung or heart; respiration still labored, and the patient was apparently dying from syncope. I gave ammonia by inhalation without much effect. I concluded to try the stimulating effects of pain, and proceeded slowly to stitch up the wounds of the throat (the man also attempted to cut his throat). This caused him to react to a certain extent. I then directed the attendants to lift him to upright position, having put in twenty stitches, leaving wounds in thorax open and unprobed. In lifting him hæmorrhage to the amount of nearly a pint followed from open wounds. Placing him again on his back, I for the first time detected the heart beat; the heart, as I thought, having been paralysed, either from pressure-hydrostatic or wound of substance, or both combined. To relieve the first, I left the wounds open for one hour, and dissected to intercostal muscles to learn if some superficial artery was not severed. At 4.30 P. M. hæmorrhage had nearly ceased and air passed in aud out of the open wound with every respiration. I closed the wound, and applied cold compresses. At 6 P. M. radial pulse was discernable, heart beat stronger, respiration easier.

Auscultation revealed that hæmorrhage had taken place into the pleural cavity. The percussion note was dull over the posterior infra-axillary region. Left patient on stretcher, fearing to move him, and with no hope of finding him alive on my morning call, I took my departure.

June 1st, 7 A. M., pulse 100 and feeble, he had suffered very little from pain during the night; no blood was expectorated, and I might say here, once for all, that he never complained of pain or spat up blood during his illness. At 6 P. M., pulse 107; still feeble, but great turbulency of the heart's action and throbbing of the carotids. Area of the dulness increasing. Dr. Munson saw the patient at this time; temp., 103.7; respiration, 40; pulse at 6 40 P. M., 120. The absence of inhibitory action was accounted for by pressure from hæmorrhage, or from heart wound, or both. Dulness was attributed to hæmorrhage, owing to absence of tubular respiration, and absence of a sufficient degree of febrile action to indicate pneumonitis.

June 2, 7 A. M., pulse, 96, respiration, 30; 4 P. M., pulse, 124, respiratisn, 40. Area of dulness increasing; severe hæmorrhage from wound. June 3, 9 A. M., pulse, 84, respiration, 30, temperature, 102°; 6 P. M., pulse, 88, respiration, 32. Record does not vary until the 9th, when patient's appetite failed, later in the day vomiting occurred followed by hæmorrhage from wound. Dr. Munson, with whom I left patient, as I was from the city, diagnosed wound of diaphragm. This was verified at the autopsy. June 9th, 7 A. M., pulse, 146, respiration, 45; dulness over entire left thorax; no tubular respiration—diagnosis, effusion; death anticipated soon. Dejections were passed in bed; ordered sponge bath and clean bed. About 1.30 P. M., Hospital steward going to door leading to veranda with bucket and sponge, was seized by patient, and patient leaaed over the banister to pavement, fifty feet below, breaking his neck, and nearly carrying the nurse with him. This is the end of a most interesting case. The following report of the autopsy was written by Dr. Munson, at my request:

Through the courtesy of Dr. Yemans I was present at the autopsy of John Burns, who so tragically ended his career at the House of Correction on Saturday, June 9th. The autopsy was made in presence of Mr. Webster, deputy Superintendent of the house, Coroner Wilson, Dr. Yemans and myself. Inspection revealed three wounds, all of which, with the aid of a probe, were found to penetrate into the pleural cavity. They were about a half an inch in length, and were made with a pocket knife, the blade of which was nearly three inches long half an inch in width. Whether the stabs were made with the right or left hand is not known. The general direction of the stabs was from without, obliquely downwards, backwards and to the right. The upper wound—the one from which the greatest amount of hæmorrhage took place at the time of injury, and subsequently on the third, eighth and ninth days—was located between the fourth and fifth ribs, about half an inch inside of the nipple and three inches from the median line. The middle cut was between the fifth and sixth ribs, and half an inch nearer the median line. The lower one passed through near the union of the cartilages of the sixth and seventh ribs. This stab, we found, had slightly injured the diaphragm. An incision was then made from the upper extremity of the sternum to the umbilicus, the skin carefully reflected, the cartilages cut through at their junction with the ribs and removed with the sternum. The left lung was completely collapsed, and the pleural cavity full of dark, uncoagulated blood, which was carefully removed with a sponge. The lung and pleura were deeply stained, and organized lymph was found on their surfaces. The right lung was healthy, excepting slight congestion of the posterior part of the upper lobe. We then made an incision through the pericardium on the right side, and carefully turned it from the heart. Two cuts had been made through it, corresponding with the upper and middle ones through the chest walls. There were two wounds in the heart, both in the left side. The lower one was in the apex; it had partially healed over, but was still plainly discernible; the upper one—situated about half way between the apex and the auricle—seemed to communicate with the ventricular cavity, as a probe passed in readily half an inch or more. This wound was plugged with a clot, and a thin, quite firmly adherent layer of lymph had been effused for an inch or more upwards and backwards from the margin of the wound. The liver, stomach and intestines were very pale, or anæmic, otherwise healthy. We did not lay open the cavities of the heart at the autopsy, but did so Tuesday evening, June 12th, before the members of the Detroit Academy of Medicine, when it was found that the knife had penetrated the cavity, making a clean cut through the ventricular wall.

Fermentation.—Are the Zymotic Diseases Fermentatious?

BY J. S. CAULKINS, M. D., THORNEVILLE, MICH.

The writer of this communication would observe as introductory, that the interest that the practical physician, as distinguished from the mere scientist, will feel in a paper on the subject of fermentation, arises from the light which its study throws on the pathology of a class of diseases second to none in importance, namely the Zymotic diseases.

Typhoid fever, scarlet fever, dysentery and diphtheria are topics of pre-eminent interest to the philanthropic physician, since we have as yet no prophylactic against them as we have against small pox, and no specific for them as we have for ague.

In the past, the treatment of these diseases has been tentative and empirical, and necessarily so, for the reason that their causes were unknown—in the future, a day will come when their treatment will be specific and rational; but that day can not arrive till study has made us acquainted with these causes and their conditions.

The present is the transition period. We see clearly the nature of these causes (possibly know one or two) and the search for the rest is pushed forward with industry and zeal.

Most organic bodies are subject to a molecular change, by which they either acquire new properties, or are split up into several new substances, which molecular change we call fermentation.

Fermentation belongs partly to chemistry and partly to biology, the chemical reactions being believed to be the work of living miscroscopical organisms belonging to the natural order of fungi.

There are many fermentations, each organic substance having one peculiar to itself, but the process in every case is essentially the same or similar. To state the case as plainly as possible, we may say, that each organic substance is liable to the attack of a microphyte which finds in it the conditions which constitute an appropriate nidus for its proliferation.

The spores of these fungi are in the atmosphere, and are so abundant that no organic substance can be, even for a short time, exposed to the air, without being infected by them sufficiently to cause its peculiar fermentation under proper conditions of heat and moisture; and the process will not stop here for some of its derivatives will prove the appropriate nidus for other spores, and a second fermentation will follow the first. The derivatives of this second fermentation will in turn be found to be the nidus of other spores, and this process never stops till the original organic substance is resolved into water, carbon dioxide and mineral salts.

Several of these fermentations, especially the alcoholic, the acetous, the lactic acid, and the putrefactive, have been well studied and their microphytes are known; others are almost wholly unknown. The best understood of all these is the alcoholic, and (since every family has a family resemblance, and the fermentations constitute a well-marked family), it will serve our purpose as a type of the process in general, and we can make use of its phenomena to illustrate and explain those of fermentation in disease.

The family resemblance which is the most striking, and which we shall make the most use of in explaining some of the phenomena of the contagious diseases, consists in the fact, that in every fermentation, some of the derivatives are volatile. If it does not give rise to any such volatile or odoriferous product it must be quite unimportant. Generally speaking, you can easily find when a fermentation is going on, if you cannot see it, you can smell it.

It will be best before going on with this discussion to glance briefly at the grounds for the belief which has been stated; for truth and candor compel us to admit that the doctrine is comparatively new—that Liebig denied it, and that it is doubted by many at the present time.

Is the physiological doctrine of fermentation fact or theory? If it be only theory, what other theory is its rival?* In searching for answers to these questions, if it be proved that the relation of the yeast plant to the alcoholic fermentation is one of cause and effect, it may be fairly assumed that the other fermentations bear the same relation to their accompanying microphytes; that it is the mycoderma that turns alcohol to vinegar; that it is the vibrio that turns milk sour; that it is the bacterium that makes the albumoids putrify, and so on through the rest of the series. By the same process of reasoning we shall be warranted, if we can show that the zymotic diseases bear the essential marks of fermentation, in assuming that they are caused by miscrophytes.

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*Those questions are argued in the April number of the *Popular Science Monthly*, by a writer (Prof. Canniff, of Toronto,) who decides that the doctrine of the agency of microphytes is not proved, and that fermentation is purely a chemical process.

The substance, beer yeast, which seems to be the central point of attack and defence in this contest, has been known to the human race since the pre-historic period. It is highly probable that it was used by our Aryan ancestors, as leaven to make bread to eat and beer to drink, in their original home in Asia, before they began their westward migrations. It is thought by some to have been known in the early Egyptian civilization, but if so, it is strange that the children of Israel did not carry the knowledge with them in their exodus. There is no mention of beer in their Scriptures, unless it is comprehended under the term wine, which is probably not the case, since wine is called red, and frequently mentioned in connection with the grape, but never with barley. The leaven which is frequently spoken of, was undoubtedly sour dough. Perhaps the reason that beer is not mentioned in the Hebrew scriptures is, that the art of making it was lost during the wanderings in the wilderness where there were no materials for the manufacture. So it would seem, from a passage in Plinius, that the Romans lost the art and relearned it from the Gauls.

During the dark ages, the use of fermented drinks made of grain, fruits, or honey became very extensive and has increased to the present time.

The ancients had some singular and absurd notions concerning leaven, but were obliged to notice its capacity to impart its own condition to other substances, and there were among them from time to time advanced minds that saw that the process was analogous to the reproductive power of animals and vegetables; but this remained conjecture with them, for the reason that they had no microscopes.

The microscope is little more than 200 years old, and it is nearly so long ago that Leeuwenhoek discovered the cells of yeast. It is strange that he did not reach the conclusion that they were alive, since he must have seen them bud and grow, but it did not occur to him that the phenomenon was vital. For the next 150 years no one thought to observe the cells of yeast through the microscope, and the discovery that they are living organisms has been made within the memory of some of us, in 1835 by Latour and Schwann.

Berzilius died in the disbelief of the doctrine, and Liebig, though he admitted, with a bad grace that it might be true, denied stoutly that it had anything to do with fermentation.

The labors of Pasteur, as much as those of any one man have thrown light on the functions of the yeast cell, and it was with him that Liebig with all his energy and ability carried on the sharpest controversy. He (Liebig) adopted the old doctrine of Stahl, the author of the the theory of phlogiston which held such undisputed sway in the world for more than a hundred years. Stahl thought that fermentation was motion, (which is true in a sense), that the particles of the ferment being in a state of motion, were capable of imparting that motion to the particles of the fermentable substances, which (being a mixture of salt, sulphur, oil and earth) were easily set in motion by the motion of the ferment. This theory of motion was re-modeled by Liebig. He held that all ferments were albuminous substances in a state of decomposition and that their particles being in a state of molecular motion, were capable of impressing that motion on the particles of substances with which they were brought into contact. This seems to us irrational enough, and it is strange that Liebig should have been so infatuated with the idea.

It is still stranger that Berzelius should have been satisfied with his own explanation of fermentation. Rejecting equally the modern physiological doctrine and Liebig's molecular motion, he taught that the phenomena were caused by a *catalytic* force, (whatever that is), resident in the yeast. This theory and that of Liebig are conspicuous examples of explaining the unknown by the unknown. Pasteur is perhaps the most eminent advocate of the physiological doctrine of fermentation, and his candid and philosophical position, appealing to future investigation to prove the truth of his opinions, is in striking contrast to the whimsical quiddities of Berzelius, and the laborious mistakes of Liebig.

What we are to do now is to briefly canvass the arguments for and against the necessary agency of the torula in the alcoholic fermentation. If it is proved that the conversion of the sugar into alcohol and carbonic acid is really the work of the microphyte, we will conclude by a parity of reasoning that the other fermentations are the work of their accompanying microphytes, and will conclude further, that every fermentation has its microphyte, although yet undiscovered.

The arguments pro and con are these :

(*a*) Fermentation with the formation of alcohol is accompanied by growth and reproduction of the torula. This alone proves nothing, for as the writer mentioned in the marginal note, says, it may be cause or it may be consequence. As he puts it, chemical forces make the soil in which germs take root and grow. It is alleged against the agency of the torula in the production of alcohol, that they will grow in sweetened water, and not produce any, if supplied with oxygen in sufficient quantity and certain salts, but this argument works the other way. It makes it probable that it is the torula that breaks up the molecule of sugar to get at its oxygen to support its respiration when heating material becomes scanty. While well supplied with air, it could assimilate what sugar it needed for its growth, without injury to the rest; deprived of it, it attacks the sugar to get the element of respiration. Losing part of its oxygen, the sugar tumbles to pieces like an arch whose keystone is withdrawn.

(*b*) It is shown by Ludersdorf, that if the cells of the torula were broken down, fermentation was not produced after the yeast was mixed with sacharine solutions. On the chemical theory no plausible explanation can be given of this fact; on the physiological theory the explanation is plain.

(*c*) It was shown by Dumas that the thin parts of the ferment had no effect on the fermentable substance, and that contact with the torula cell was necessary.

(*d*) Fermentation can be stopped at any stage by sufficient heat to kill the torula, and by various vegetable and mineral substances, which are capable of acting as poisons to it.

(*e*) The foregoing might seem to be enough for the champions of the chemical theory to dispose of, but here is the final and unanswerable argument: a portion of the sugar in the fermenting substance disappears, being used by the fungus to support its growth. This proves that the initiative step in fermentation is the attack of the torula on the molecule of sugar. Any other conceivable hypothesis would make the fungus live on the products of fermentation, which it cannot do.

The point is believed to be fully sustained that the alcoholic fermentation is only another name for the work of the yeast fungus in breaking up the sugar molecule, carrying with it the postulate that every fermentation has a fungus for its cause. In many cases the fungus is yet to be discovered, if not too small for the microscope to reach.

We are coming now to the point of greatest interest to the practical man, that is the application of what we have just learned to diseases; but we must first enquire if we really have a place to apply it. Is the doctrine that the zymoses are fermentatious certainly true, or is it a bit of scientific romance?* Let us see what we ought to believe on this point, and in doing so will glance first at what we can learn without the aid of the microscope by comparing the phenomena of these diseases with those of fermentation.

What then are these similar phenomena?

1st. We have in both a stage of incubation.

2d. The capacity of reproduction.

3d. Specificity and fixity of type.

4th. The power of conferring sterility on second exposure to their action.

5th. Susceptibility to destruction by the same agents, physical or chemical.

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*I am not unaware of the fact that many opponents of the "germ theory" admit that the contagious diseases are fermentations in the sense that they attach to the term. The use of the word zymosis as a generic name is a tacit admission of this, and all parties seem agreed to use the term in this sense. The question as it stands in the text, means, are they fermentations according to the physiological theory of fermentation.

These resemblances, if they lack anything of establishing a common ordinal character for fermentations and contagious diseases, we complemented by the revelations of the microscope. Whatever scepticsm we may feel on the question of the identification of the typhoid and scarlet fever fungi, we can have none concerning the cause of the rinderpest.

This contagious disease, to whose attack the human as well as the bovine race is liable, has been proved by Cohn and Koch to be the work of a microscopical fungus. Their experiments, on which the above conclusion is based, are so numerous and varied that there is no room to doubt its correctness.

Some objector may ask, "admit all this, that the cause of this one contagious disease is a microphyte, is that fact sufficient proof that the rest have similar causes?" Confidence in the uniformity of the processes of nature (the basis of all our knowledge) enables us to answer this query affirmatively.

The relations of the whole class of contagious diseases to one another are such, that whatever is proved true of the origin of one of them must apply in a similar manner to the rest.

From the facts then in the case of the rinderpest, the deduction which the future will doubtless specifically prove true, may confidently be made, that *every contagious disease is essentially a fermentation.*

Having reached this conclusion let us revert to what I called the point of greatest interest to the practical man, the application to zymotic disease of the rules that guide us in dealing with fermentations.

The case presents the two plain indications of

1st. How to hinder the fermentation from beginning.
2nd. How to stop it after it begins.

Unfortunately not very much can be said on either point, for as yet our methods are imperfect as to the first, and in embryo as to the second. Of course the way to prevent a fermentation is to keep the ferment out of the fermentable matter. In this case the ferment is the zymotic virus proliferated in its nidus, the blood of the sick, and escaped into the atmosphere, and the fermentable matter is the fluid in the blood vessels of the unprotected well. Obviously the way to accomplish the indication is, by the use of germicides, to kill the cells of the virus (or their spores) as fast as they escape from their hotbed into the atmosphere.

In accomplishing this object, the appliances with which we are already acquainted are affective to some extent, and good use can be made of them, by keeping an atmosphere of disinfection around the sick; but Nature's method must be the best, and it becomes us to study diligently till we find what that method is. It is very certain that she has one by which she destroys the vitality of the poison of every zymosis soon after getting into the air,* otherwise there would be a constant accumulation of the different poisons in the atmosphere, that would in the end make the earth uninhabitable. The agent that Nature uses to kill the floating cells of the zymotic fungi must be either the actinic rays of sunlight or oxygen gas in its condensed and active form of ozone. Our plain duty is in the case, to study to find out her true *modus facundi*, and having found, to imitate it. As to the second indication, the stopping of the fermentation, it can be done only by killing the ferment in the blood, and as already observed our methods of accomplishing this are yet in embeyo. The internal use of certain germicides has been recommended, as for instance the bi-sulphites; but it is difficult to get them down fast enough. It takes a large quantity to disinfect 18 or 20 pounds of blood. Quinine has been proposed, and perhaps is the best we have, but a similar remark can be made of it, there being danger that the necessary large amount will produce toxic effects. Perhaps Wade's method with hydrobromic acid may obviate these dangers and it ought to be well tried.

The writer proposes to employ for this indication inhalations of *ozone*, and at the same time to flood the system by way of absorption through the alimentary canal, with a solution of the gas in water, ***having found that such a solution will hinder the developement of infusoria in fermentable liquids.***

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*This is the general law. In some cases, especially in scarlet fever and the rinderpest, the virus hides away for an indefinite time from the agencies that usually effect its destruction. In such cases it is believed that it is the spores, and not the full-grown cells that escape, seeds being much less perishable than their parent plant.

Perhaps a solution of the gas in oil of turpentine diluted with some blander oil, and used by way of inunction, would be useful to disinfect the skin, especially in scarlet fever; of which disease, that which Koch found to be true of the riderpest is probably also true; namely, that its microphyte is a spore producing fungus with a double contagium, a fugitive one resident in the cells of the fungus, and a more permanent one resident in its spores, making it peculiarly necessary to disinfect the skin, since it is to that and the clothing in contact with it, that the spores coming through it with its secretion, would the longest cling. Whether any efficacy inheres in the above proposed treatment, let its trial in the future answer. If there is none we must look farther, nature seldom gives up her secrets till she is sternly interrogated.

Reference has been made to the fact, as explanatory of some things in zymotic disease, that volatile, generally odoriferous products are formed in all fermentations. These gaseous matters are poisonous as far as known, for instance in yeast fermentation the gas evolved is carbonic acid as it used to be called, in the acetous it is hydrogen, in the fermentation of urea it is carbonate of ammonia, in the putrefaction, or fermentation of the albuminoids it is sulphhydric acid and other unknown and not sweet smelling substances. What a light might it not throw on the pathology of the zymoses, if we know what the gases are that are formed during the fermentation in the blood? We have all observed that in some epidemics, notably in Asiatic cholera and in scarlet fever, there will be cases in which a fatal result soon follows the attack of the disease, long before the usual causes that extinguish life can act, before indeed any appreciable lesions take place; there having been cases in which death has followed the attack of cholera in five or six hours, and that of scarlet fever in less than twenty-four. There will be occasionally a case of small pox that will die before the eruption appears, at least two such having come under my own notice.

When diphtheria first made its appearance in this part of Michigan, there were among the earliest cases, some that died in less than two days after the attack; and in the epidemic of cerebro-spinal meningitis of 1848, the first case proved so rapidly fatal, that the man's boots were not removed from his feet till after he was dead. It has been common, especially in cholera, to attribute the result in such rapidly fatal cases to fright, and undoubtedly it is in many instances an important factor, but that it is an insufficient explanation of all is obvious, as for instance in such as occur in infancy, and in a first case like that mentioned above.

The proportion of pernicious cases, it has been noticed is larger at the inception and outbreak of an epidemic than during its subsequent stages. The laity futilely think that this is because the doctors get to understand the disease better. The true explanation it is most likely, connects itself with what seems to be a general law in vegetation, that under equally favorable circumstances, the heaviest crops are produced from seed bought from a distance, while repeated plantings in the same locality deteriorate the produce. This explains why it is that in the first cases of an epidemic, the fermentation is so tumultuous, that the evolved gases cannot escape as fast as they are generated, and consequently accumulate in the blood and kill by poisoning the nervous centres. It may be asked if chemistry knows of any gases that are capable of producing such effects, providing they were set free in the blood, and if any probable theory for their formation can be given. One such at least is known. Carbonic oxide is capable of producing such effects; it will kill when inhaled in very minute quantities, and the theory of its fermentation in the blood is sufficiently intelligible.

The method of its formation would be, by the breaking up of the molecule of carbonic acid, through the agency of the microphyte of the disease, in the same way that the yeast plant breaks up the molecule of sugar, and for the same reason, to get oxygen to sustain its respiration. There are infusoria known that get their oxygen from carbonic acid; the vibrio does. The result may be accomplished in two ways, in one of which the microphyte may take part of the oxygen from the carbonic acid, and leave the oxide—CO^2—$O=CO$. or the microphyte may take the whole of the oxygen and only carbon would be left, which on coming in contact with oxygen might unite directly with it to form CO. As far as we know yet, when carbon and oxygen unite they always form CO^2, but the former exists in so many states that we cannot predicate of it that it will always do so. It is very likely that in some of its states and in a nuscent condition, it will unite with oxygen in equal equivalents to form CO.*

Perhaps, when science has resolved disease into its ultimate factors, it may be found that there is no more important one in all pestilences than this deadly gas, carbonic oxide. In reply to the question, some pages back " what is it that is the rival of the physiological theory" the answer is that the one deserving of the most attention, is that which holds that zymotic disease is caused by poisons engendered by the decay of organic matter, the chemical theory. There are objections to this theory that seem insuperable. It does not account for the reproductive power and specificity of disease. How can a chemical poison reproduce itself in the system of the poisoned or elsewhere. The annals of chemistry give us no history of a case in which a poison reproduced itself, and it is incredible. As far as we know, reproductive power is solely a function of organization and life. The most plausible and ingenious view on this side of the question, that I remember to have read, is presented in the " Report of the Michigan State Board of Health, 1875, by the Secretary of the Board, H. B. Baker, in a paper on the reproduction of disease germs. He admits the formation in the blood, in zymotic diseases, of definitely constituted particles of matter that reproduce the disease, but advances the idea that the process instead of being a physiological genesis, may be analogous to that of crystalization, as when in a saturated solution of a salt, the introduction of a crystal of that salt produces a crop of similar crystals; and the conclusion is sought to be drawn, that the "reproduction of bodies having similar forms and qualities is not proof of the presence of life." The point is well taken, the saturated solution is the albuminoid fluids of the blood, the introduced crystal is the minute speck of albuminoid which constitutes the virus of some disease, the reasoning is ingenious but not conclusive. The use of the term reproduction in the case is hardly allowable, since a gravel stone dropped into the solution might be as efficacious as a crystal of the dissolved salt, and so might be a sudden jar on the side of the containing vessel. The proper term then by which to express the formation of crystals is production instead of reproduction. Reproductive force in the sense that the physiologist understands it, is not only proof of the presence of life, but is solely a function of life.

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*That carbon exists in more states than we know and with different affinities, appears from the fact that Schutgenberger has recently made from the carbon in cast iron, a carbo-hydrate in which the oxygen and hydrogen are in the proportion to form water. Synthetic chemistry has never been able to hydrate carbon in any of its known states.

In the foregoing remarks no reference is intended to be made to the action of the soluble ferments (so called) by which nutritive matters are changed in form as starch to sugar, sugar to fat, albumen to albuminose, etc. These processes are not (that we know) fermentations and physiology has yet to learn their causes.

Our legitimate conclusions are these:

1st. All fermentation is caused by the presence and agency of organisms in the fermentable matters.

2nd. The contagious diseases are fermentations, and the organisms or these spores that cause them are recepted into the system from without.

3rd. Only a few of these are yet known, the rest all must be discovered as soon as may be, if not beyond the reach of the microscope.

4th. Following closely the discovery of the organisms of disease, we may hope to see that of the germicides to kill them, either before or after they get lodgement in the human system.

5th. And consequently, the ultimate stamping out and total disappearance of the zymotic diseases.

Abscess of the Cornea.

BY EUGENE SMITH, M. D., DETROIT, OPHTHALMIC AND AURAL SURGEON TO ST. MARY'S HOSPITAL.

Few diseases of the eye cause such variable degrees of sensibility as the different forms of suppurative corneitis. Some are accompanied with the most intense pains and are exquisitely sensitive to the touch, while others, notwithstanding the amount of purulent matter secreted, do not cause the least suffering. We sometimes see cases where pains, the most severe, precede the developement of a little insignificant circumscribed abscess; they disappear when the abscess is formed only to reappear and precede the production of new collections of pus.

At times the attacks of pain assume an intermittent character. Unquestionably there exists a reciprocal relation between the intensity of the pain, the intolerance of light and the circumcorneal injection.

Two forms are recognized by ophthalmic surgeons; one accompanied by more or less intense inflammatory symptoms; the other unattended by pain or symptoms of inflammation and insidious in its march. The first or sthenic form usually begins with pain of an excruciating character, lachrymation, intolerance of light and a conjunctival injection particularly marked around the cornea—pericorneal. That portion of the conjunctiva immediately surrounding the cornea (the limbus conjunctivalis) is many times swollen. An examination of the cornea shows one or more whitish spots, either in the centre of the cornea or towards its border. If several points exist, they may coalesce and form one large abscess; it is very seldom, however, that more than half the cornea is involved. The abscess may be situated superficially or deep in the lamellæ of the cornea, and the gravity of the case depends to a great extent upon this fact. Serious complications also are apt to depend on the depth and extent of abscess. Thus a superficial abscess of slight extent may progress towards resolution with but little trouble, whereas the generation of a mass of purulent elements at a considerable depth, easily gives place to partial or total destruction of the cornea, either by ulceration or by producing an indelible opacity.

Pus in the anterior chamber (hypopion), and iritis are the most frequent complications. When the disease commences with great intensity, the inflammation may extend to the deeper structures of the eye and cause suppuration of the entire organ. This termination is rare and happens only in cases enfeebled by long sickness or after violent injury to the cornea.

The second form, the asthenic, is characterized by the almost complete absence of inflammatory symptoms. In children, frequently following the exanthemata and in persons debilitated by grave diseases, diabetes, etc., we may see appear on the cornea a yellow point which slowly extends and which is accompanied with but a faint rose-color of the conjunctiva at the periphery of the cornea, near the point of the abscess (if the latter be situated near the border), and encircling the cornea of the abscess is located at its centre. There is no intolerance of light, no lachrymation and no pain. The march is insidious and indicates a tendency to spread, as well in depth as in extent. Occasionally the spread of disease is surprisingly rapid, and once the deep layers are affected the iris becomes implicated, a hypopion forms and the trouble may extend to the deeper structures of the eye and determine the atrophy of the organ. The disease does not, however, always terminate so destructively. When it takes a more favorable course, it assumes either spontaneously or as a result of judicious treatment, a sthenic character. A greyish annulus forms around the abscess, the organ becomes very sensitive to the light and the touch, the circumcorneal redness appears and the abscess loses slowly its yellowish hue; if an ulcer has formed, the epithelial layer soon forms, the parts become quite vascular and the cure follows, more or less opacity remaining at the seat of the abscess.

The most frequent causes of suppurative corneitis are probably conjunctival inflammations; and the chief danger, in fact, of conjunctival inflammations, particularly the purulent forms, is suppuration of the cornea.

That form of suppurative inflammation of the cornea known as neuro-paralytic, and which is occasioned by lesion of the 5th pair, I shall not consider in this paper.

The ætiology of the asthenic variety is obscure. I have purposely avoided the consideration of the disease as it appears after operations, the presence of foreign bodies, chemical injuries, etc. preferring to confine myself to the idiopathic per se.

The treatment of the sthenic type of the disease must be antiphlogistic leeches to the temple, mercury internally, and mercurial frictions to the forehead and temple, atropine instillations, etc. It is very evident that this form of treatment will not answer for the asthenic variety. In the indolent type of the disease a treatment must be adopted which has for its aim the production of a congestion favorable to the nutritive functions and the immediate effect of which is to modify or stop the developement of the disease. It consists in the employment of hot compresses, which should be kept on from half an hour, two or three times a day, to all day, and even part of the night if necessary, according to the effect of it upon the abscess; it should be stopped as soon as the abscess is encircled by a greyish zone and vessels spring up in the cornea.

Too much cannot be said against the employment of caustics and astringents, such as nitrate of silver, sulphate of zinc, tannin, etc., in the treatment of suppurative keratitis. They may be carefully used at the period of decline of the disease, but even then they are not devoid of danger, even in experienced hands. An excellent means of checking the rapid progress of extensive abscess of the cornea, is to diminish the tension of this membrane by a paracentesis of the anterior chamber. This may be done at the periphery of the cornea, or as is sometimes preferable in the most dependent portion of the abscess. Sometimes when the inflammatory symptoms have nearly disappeared, the abscess becomes, as it were, stationary. Under such circumstances, paracentesis and the application of the pressure bandage, many times have a most happy effect. The surgical treatment of absess of the cornea, may give very good results regarding the reparation and transparency of this membrane; but we must not lose sight of the fact that it is not within the reach of every practitioner, and requires for its proper and successful use, a special study and a special experience.

Abstracts from Virchow's Archives.

PREPARED FOR THE DETROIT MEDICAL JOURNAL BY H. P. V. PETERSHAUSEN, A.M., M.D., PH. D.

IV.—*On the healing of Corneal Wounds.* (*Dr. Hans von Wyss, Zurich, Vol. 69, Jan,* 1877.

The author studied the events following wounds of the cornea of different animals caused by a cut. He found that the margins of a not penetrating cut in the cornea become completely united during the first day by newly formed epithelium. In case the epithelium in the neighborhood of the wound was removed, it regenerates during the first day, and as soon as all is reproduced around the wound the latter closes as if there was no epithelium wanting. The consistence of this primary closure is considerable.

Somewhat different is the healing of a penetrating cut. The wound is filled up by epithelium at least to two-thirds of its depth, and only its deepest parts, near the Membr. Descem., are filled up by fibrine precipitated from the regenerated aqueous humor which generates from the vessels of the iris after injury to the cornea.

The cellular elements of the proper substance of the cornea do not contribute to the union of the wound in the course of the first days. An inflammation of the cornea is not a necessary sequence of a simple cut, but occurs always on account of accidental irritation, and then it hinders the wound from proper healing. During the later stages of the healing mode there are found a great number of spindle shaped bodies arranged parallel near the wound. They are connected with voluminous proliferating corpuscles of the cornea. The author thinks it probable that their prolongations are directly connected with the fibres that then fill the cicatrix, though he could not trace them so far. The epithelial elements disappear at last in the scar by atrophy, which is caused by the growth of the fibres.

The doctor is of opinion that the great proliferation of the epithelium must be considered as a peculiarity of the cornea. From this reason he does not admit that the healing mode of other regions is the same as the one of the cornea.

V.—*On the Accumulation of White Blood Corpuscles in the cortical portion of the Brain* (*Charles, Duke of Bavaria, M.D., Vol. 69, Jan.* 1877.)

Pohoff observed that in typhoid fever and in typhus there may be found in the brain white blood corpuscles not only in the neighborhood of ganglion cells, but even in their substance, in which case they might cause a division of the nuclei of those cells. These facts might be considered an anatomical base for the brain symptoms in those diseases in case they should be confirmed. The Prince examined about fifty brains to contest Popoff's observations. Among this number there were two from healthy persons beheaded on account of being convicts, twenty-two were from persons deceased in all stages of typhoid fever, and others were from persons who died by pneumonia, meningitis, nephritis, general fatty degeneration, etc.

The result of his examination was, that in the cortical portion of every brain there are found numerous white blood corpuscles. In general they may accumulate on account of a retarded circulation combined with an increase of the quantity of water in the brain.

Among the localities where the corpuscles are deposited the author noticed the ganglion cells around which one, three, and sometimes even six or eight were placed. But they never penetrate the substance of those cells, and do, of course, not cause a division of their nuclei. Besides, there were found corpuscles in the perivascular spaces of His, in Robins' adventitial canals, and in the periganglionary spaces. The latter are considered by the author as lymph spaces, connected next with His' spaces. The brain symptoms do not depend upon the presence or enlarged number of the white blood corpuscles, nor upon the retarded circulation, nor lastly, upon the increased quantity of water in the brain (provided this comes on slowly), but must be considered as the expression of a sudden increase of these three agents. Of course, the fever and its causes must likewise be taken in consideration in that respect.

VI.—*On Septic and Micrococcic Injection.* (*Dr. A. v. Puky, of Buda, Pesth.* *Vol.* 69, *March*, 1877.)

The doctor's researches aimed at the solving of the question "if micrococci accompany always, or only in certain cases, septic injection." He used only rabbits for his experiments.

As the yolk of eggs is rich in globulinous substances, in which respect it resembles pus and the products of inflammation, there may be formed similar products by its decomposition. The putrid yolk was then brought into the organism, either by subcutaneous injection or by an injection into the jugular vein. For some experiments an emulsion was prepared from the fresh yolk, which was carefully preserved in clean vessels until putrefaction was noticed.

All organs of the expired animals were carefully examined, as well macro as microscopically. The yolk masses were at certain periods likewise examined and it was always found that they contained, fat drops, fat cells, fat crystals, vibriones, and fine corpuscles and granules having the character of micro-organism.

The author found :

1. That the fresh yolk injected had no effect upon the animals.

2. That the injection of the putrid yolk had a much stronger effect when made into the vessels than if made subcutaneously. In case the yolk had an acid reaction, death followed several times during or soon after the injection, while death followed not so often in case of a more neutral reaction. Poisoning was caused in these cases even without the simultaneous growth of micrococci. The putrid yolk must, therefore,

contain substances that act like common poisons, and it is not always necessary that in cases of putrid infection the micrococci present in the putrid substance must be absorbed. Moreover, it will be evident that putrid substances may cause poisoning in men if organic substances undergo putrefaction on them.

3. That the putrid yolk lost its poisoning power when it was boiled for an hour or longer.

The author found further that an injection of the emulsion of the putrid yolk was followed by putrid poisoning, if it was only several days old, and that the vegetation of micrococci followed if the preparation had several weeks time to putrify. In this case the original acid reaction of the emulsion loses its strength, in consequence of which the development of micrococci is favored. Besides, micrococci are only generated in the animal if the yolk had undergone putrefaction as an emulsion, but not if the emulsion was prepared from the putrid yolk.

VII.—*The Influence of High Temperatures on the Body.* (*Dr. M. Litten, of Berlin.* *Vol.* 70, *May*, 1877.)

The author selected for his experiments the adults of Guinea pigs, as the younger ones often have fatty infiltrated organs, and for this reason he excluded likewise rabbits and dogs, which have also normally more fat in their organs than Guinea pigs. He brought the animals in a box in which the temperature of the air could be constantly kept at 94 to 97° F, or even at 102 to 104° F. The effect of a longer presence in such a box upon the animals consists, not in an increase of their normal temperature. The changes never missed after the animal had been kept at least thirty-six to forty eight hours in the box, and subsequently expired were fatty infiltrations resp. degenerations of a number of organs of a pathological nature, i. e., they surpassed by far the physiological infiltrations.

The earliest period after which this change could be noticed was thirty-six hours. The liver showed always the first symptoms of it, reminding of the human fat liver. Next there followed the heart and the kidneys; of the latter, especially, the epithelium was fatty infiltrated, beginning with the tubuli contorti. At about the same time (two to three days) the respiratory muscles became attacked. The vessels were in most cases only partly degenerated (vessels of plexus horoideus, of pia and the coronary arteries). In the brain and medulla there was no change found. Besides numerous little hæmorrhagiæ the lungs appear to be intact. The blood contained almost constantly crystals in great number, and irregular, colorless flakes, covered by nuclei and fat drops, and identical with those found in acute infectious diseases (typhoid fever, recurrent fever).

As to the chemical changes going on in the body under the influence of increased temperature there was observed by several experimenters an excretion of more urea while less carbonic acid was exhaled. But the Dr. found that the quantity of carbonic acid is at first enlarged and then decreases. The decrease must be sought for in a less lively taking up of oxygen caused by deeper alterations in the organs that transport this gas. Among such organs the red blood corpuscles play a prominent part. They may be dissolved, get disintegrated and smaller. A. Schmidt found no oxygen in the blood from the heart of Guinea pigs, which expired in consequence of high temperatures and were examined immediately after death. The want of oxygen is followed by an abnormal disintegration of albumen, decreased exhalation of carbonic acid, and fatty degenerations in the different organs.

Based upon his experiences the author thinks that in fevers of man the fatty degenerations are effected by the abnormally raised temperature. In case that fatty degenerations of parenchymatous organs are found at the same time, they do not depend directly upon the higher temperature, but upon unknown causes (specific infections), or they are of a cadaverous nature. The Dr. never found such changes as the results of even high temperatures (113° F.) in the course of a few hours. Should fatty degeneration of the heart be found in case of heat stroke, it might have already existed before, and only hastened the fatal end.

Reports of Societies.

American Medical Association—Twenty-eighth Annual Meeting.

CHICAGO, June 5th, 1877.

The Convention assembled in Farwell Hall, and promptly at 11 o'clock was called to order by the retiring president, Dr. J. Marion Sims. After touching upon the history of the Association and what it had achieved in the past in a few brief complimentary words, he introduced the new president, Dr. H. Bowditch, of Massachusetts, who, in greeting the members, thanked them for the honor which they had conferred upon him, and hoped that the meetings would be harmonious and profitable ones.

God's blessing was then invoked in favor of the Association by the Rev. William L. Harris, D.D., LL. D.

Dr. N. S. Davis, as chairman of the Committee on Arrangements, gave the delegates a cordial welcome to the city, reviewed in brief terms the antiquity of the profession, glanced at the history of the Association, and hoped, in conclusion, that the delegates would carry on the work of the profession even more vigorously, more nobly, and more successfully than they had done in the past, and that these annual greetings would continue while the country endured and as long as time should last.

The report on credentials of members was now submitted, members, by invitation, were received, vice-presidents were invited to the stand, permanent members were elected, letters of regret from absentees were read and the order of exercises of the meetings as published was explained.

Dr. Bowditch, the president, then delivered the annual address. He called attention to the facts that the meetings had now greatly changed in character from the time when the roll call consisted of only seventy-six names; that the very number of the delegates was an impediment to the transaction of business; that the by-laws for the reception of papers and the conduct of debates permitted those afflicted with the "cacœthes scribendi or loquendi" to bore the members, and that the meetings were too infrequent. He made the following recommendations, in favor of which he gave cogent reasons: 1. More frequent meetings should be held, and the assembled body should be smaller. 2. No paper should be published until it has been submitted to and approved by experts in the particular subject treated, the experts being governed by the rule that no paper should be deemed worthy of publication which did not contain something new to medical science, or which did not present such an analysis or such a new or lucid arrangement of facts already wholly or in part known as to greatly aid the profession. 3. That a special committee be appointed to lay out the programme of work and to select the ablest men to prepare papers upon the topics with which they were most familiar (this would not, however, exclude volunteer papers). 4. Every member of a state society should become a permanent member of this Association. 5. Representation should be made smaller by allowing only one delegate from a society for every twenty or thirty of its members, instead of one for every ten. 6. That the question of the union of the Canadian and American Medical Associations be referred to a joint committee of the two bodies, which shall report at some subsequent meeting. 7. That the question of the revision of the American Pharmacopœia be referred to the Judicial Council.

After a vote of thanks had been tendered to the president for his interesting address, and the latter ordered to be published, the recommendations contained in the paper were referred to a special committee of seven.

Papers were now received and referred to appropriate committees, after which the general meeting adjourned until to-morrow morning.

WEDNESDAY, June 6th, 1877.

The second day's session (business meeting) commenced at 9.30 this A. M., president Bowditch presiding. Numerous communications, invitations, etc., were received and referred to the proper committees.

Dr. Brodie, chairman of the special committee to consider the suggestions contained in the president's address, reported practically that there was no necessiiy for them, and that the Association could get along without making the proposed changes if the chairmen of the sections and the committees performed their work more faithfully. The motion to adopt the report was laid upon the table.

But a short time remaining of the hour which had been allotted to Dr. E. R. Squibb for the reading of his paper on "The Revision of the United States Pharmacopœia" on motion it was extended to 11 o'clock. The time expired, however, before the conclusion of the paper, and Dr. Davis, the chairman of the Committee of Arrangements, was called upon to appoint another time for Dr. Squibb to finish the subject.

The latter gentleman's paper was followed by the report of Dr. P. G. Robinson, of Missouri, chairman of the section of Practical Medicine, who mentioned various subjects known to all readers of any ordinary medical journal, as, the source of contagion of typhoid fever, the use of strychnine in rabies canina, the employment of salicin and salicylic acid in rheumatism, the additions to the materia medica, etc. The report was referred to the publication committee.

An adjournment of ten minutes here ensued, in order that the state delegations might select their member for the "Committee on Nominations." The Michigan delegates selected Dr. L. Connor.

On resuming business Dr. J. P. White, chairman of the section of Obstetrics, commenced his report upon that subject. He remarked that the formation of the American Gynæcological Society was an event worthy of note; that the work of Parry upon the subject of extra-uterine pregnancy was a master-piece; compared the statistics of the use of the forceps by celebrated

German, French and Irish accoucheurs; recommended the long and double curved instruments; finally exhibited and described his own forceps, which, in his opinion, combine all the advantages without any of the disadvantages of other instruments. The paper was referred to the Committee on Publication and the meeting adjourned.

THURSDAY, June 7th, 1877.

The meeting was called to order by president Bowditch at 9.30 A. M. Dr. Norman Bridge, chairman of the Registration Committee, announced the names of a number of persons lately enrolled, making the list of delegates present number 660. Dr. Davis reported numerous names as candidates for members by invitation and permanent members, and those thus proposed were declared elected.

The secretary stated that the only necrological reports received were those of Indiana, Maryland, Missouri, and U. S. A., and he moved that these be referred to the Committee on Publications, which was ordered.

The Committee on Prize Essay reported that but one essay had been presented to them in compliance with the by-laws, and they did not consider it entitled to the prize. He moved that the author of another essay, which had been handed in too late for examination, be allowed to withdraw his paper and present it the next year. The report was adopted and the required permission granted.

The Judicial Council, in the matter of the Arkansas State Medical Society and the Arkansas State Medical Association, which was decided in favor of the former last year, reported that no further action be taken and that the application for the admission of a delegate from the latter be refused. They also reported favorably on the admission of delegates from the Branch County Medical Society of Michigan, and against the admission of a delegate from the Hendricks County Medical Society. In the matter of the charges made by Dr. G. E. Frothingham against the Michigan State Medical Society and against Drs. Foster Pratt, of Kalamazoo, and G. K. Johnson, of Grand Rapids, they reported that the charges had no bearing on the professional character of the defendants, and should therefore be dismissed. (See below.) All the reports were accepted.

The Committee on Publication reported that the late appearance of the volume of Transactions for 1876 (Vol. XVII) needed an explanation. The delay of a few months after the meeting is, of course, due the fact that the edition which it is proper to print cannot be arrived at except by means of answers to circulars sent to the members. As already frequently complained of, these circulars are not answered at all or only after a long delay. The committee, however, is profoundly convinced that the proceedings of the Association can be adequately reported by men of medical education alone, for every year a large mass of copy prepared by professional reporters has been undecipherable, and, of course, unfit to be put into the hands of the printer. Particularly is this true in the minutes of the sections. So markedly was this the case last year that, had it not been for the kind co-operation of several members who had attended the last session of the convention and who had participated in the discussions, the Committee on Publication would have been forced to eliminate paragraph after paragraph from the minutes. Under the circumstances the committee think that they can consistently claim the indulgence of the Association. Of Vol. XXVII, 1,250 copies were printed; 1,207 copies distributed to members, and forty-three copies are on hand. Of the prize essay 1,250 copies were printed, of which 1,067 have been distributed, leaving 183 on hand.

The treasurer reported that under the positive instructions of the Association, the prize essay has been published at a cost of some $6000. This unusual outlay, in addition to the volume of transactions, leaves the treasury in an exhausted condition, for it has given nine dollars in value to every member for five dollars received. After his twenty-two years of service, the treasurer thanked the Association for the confidence it had placed in him, and regretted that he could not leave a more abundant surplus (about $150). These two reports were referred to the Publication Committee.

The paper of Dr. E. M. Hunt, of New Jersey, chairman of the section of State Medicine and Public Hygiene, now followed. He believes that methods of prevention from other zymotic diseases by the use of the principle involved in vaccination may be devised by researches in that direction; deprecated the great want of sanitary science among physicians in general; praised the Edinburgh University for the attention and examination which it required from the medical student in that branch; urged upon all medical colleges to pay greater attention.to the subject and to make its study a part of the college curriculum. The lecture was listened to with great interest, and was ordered referred to the appropriate section.

The secretary read the report of the librarian: 187 distinct titles, exclusive of transactions of societies, reports of hospitals, boards of health, and volumes of medical journals which have been already catalogued as distinct titles, have been added to the library; it now consists of 817 distinct titles, which comprehend, from a general estimate, about 2,034 volumes, inclusive of pamphlets. The report was referred to the Publication Committee.

Dr. E. R. Squibb then resumed the reading of his paper on the revision of the U. S. Pharmacopœia. In concluding, he said that the Association had three courses before it. The whole thing might be laid upon the table—this would be most acceptable to the speaker—or they might prepare a plan and offer it to the profession, allowing it to stand upon its merits; or, they might appoint, through the Nominating Committee, a committee of three to prepare a report for presentation at the meeting next year. He would be glad to listen to discussion, and he accordingly moved that the whole subject be laid upon the table. This original way of promoting discussion (a motion to lay upon the table not being debatable), did not by any means meet the approbation of many, and accordingly the motion was withdrawn.

The chairman of the Committee on Nominations offered a partial report, and the secretary read the following: For President, T. G. Richardson, Louisiana; Vice Presidents, J. P.

White, New York, Moses Gunn, Illinois, G. W. Russell, Connecticut, A. Dunlap, Ohio; Chairman of section of Medicine, Materia Medica and Physiology, A. L. Loomis, New York; Secretary, J. H. Etheridge, Illinois; Chairman of Section of Obstetrics and Diseases of Women and Children, E. W. Jenks, Detroit; Secretary, H. O. Marcy, Massachusetts; Chairman of Section of Surgery and Anatomy, H. H. Smith, Pennsylvania; Secretary, E. Z. Easly, Arkansas; Chairman section of Medical Jurisprudence, Chemistry and Psychology, W. Kempster, Wisconsin; Secretary, E. A. Hildreth, West Virginia; Chairman section of State Medicine and Public Hygiene, J. L. Cabell, Virginia; Secretary, A. J. Marsh, New Jersey. Next place of meeting, Buffalo, N. Y.; time, first Tuesday in June, 1878. The report was unanimously adopted.

Discussion on Dr. Squibbs' paper then commenced. Dr. H. C. Wood, of Philadelphia, spoke strongly in opposition to Dr. Squibb. Dr. Davis did likewise, but from an entirely different standpoint, and his motion for the indefinite postponement of the whole matter was carried by a large majority, and the meeting adjourned.

FRIDAY, June 8th, 1877.

Convention assembled at 9.30. Pres. Bowditch occupied the chair. Dr. Davis again presented the names of a few gentlemen as members by invitation and as permanent members. They were elected.

The secretary of the Association presented charges which had been made against the Michigan State Medical Society. Referred to the Judicial Council. (See below.)

The report concerning State Boards of Health shows that fifteen states have now established Boards as recommended. Report ordered filed.

Dr. Thomas M. Drysdale, of Philadelphia, was elected a delegate to foreign medical societies, and Clifton E. Wing, of Massachusetts, as delegate to the Canada Medical Society.

The secretary presented the minutes of the work of the Judicial Council. Ordered filed.

The receipt of minutes was also acknowledged from the sections on Obstetrics, State Medicine, Surgery and Anatomy, Medical Jurisprudence and the practice of Medicine.

The Nominating Committee presented the following further report: Assistant Secretary, E. W. Brush; Committee of Arrangements, T. F. Rochester, J. F. Miner, E. A. Barnes, C. C. Wyckoff, M. Folnele, W. C. Phelps, E. W. Brush, all of New York; Committee on Publication, W. B. Atkinson, F. M. Drysdale, A. Fricke, S. D. Gross, C. Wister, R. J. Dunglison, of Pennsylvania, W. Lee, of District of Columbia; Treasurer, R. J. Dunglison, of Pennsylvania; Librarian, W. Lee, District of Columbia; Committee on Library, Johnson Elliott, District of Columbia; Judicial Council, J. K. Bartlett, Wisconsin, T. F. Staples, Minnesota, E. Grissom, North Carolina, W. F. Robertson, S. Lilley, New Jersey, W. W. McPhutres, Wisconsin, A. T. Woodward, Vermont. The foregoing in place of the seven whose terms now expire by limitation. P. O. Hooper, Arkansas, in place of A. Dunlap, whose term expires in 1878. Committee on Prize Essays, E. M. Moore, F. Lothrop, W. Miner, A. R. Hopkins, E W. Dean. They were all duly elected.

The report of Dr. J. J. Woodward and E. Seguin on the progress of uniformity in the means of observation and records of physic was submitted. There has been a cheering advance both in the official and technological aspects of the question. In concluding, they propose that the American Medical Association send special delegates to the International Medical Congress at Geneva, to advocate the adoption of a progressive uniformity of means of medical observation and records, with the concurrence, if possible, of the members of the Congress, who who will be found there engaged in advocating the application of uniformity in this and other departments of science. The Association adopted the conclusions of the report, and joined this committee to the regular committee to foreign medical societies, naming Dr. E. Seguin, of New York, president of the mixed delegation.

Dr. J. W. Singleton, of Paducah, Ky., offered in behalf of the Kentucky State Medical Society a number of resolutions for the repeal of the tariff upon quinine, very similar to those passed by our State Medical Society. They were adopted amid much applause.

The Association passed resolutions regretting the ill health of its former president, Dr. G. B. Wood, and tendering him its condolence.

Dr. L. A. Sayre was accredited a delegate from the Association to the British Medical Association.

Dr. Bowditch, retiring temporarily from the chair, presented the following:

Resolved, That the Association recommends to the chairmen of the sections at any place at which we may hereafter meet, the propriety of obtaining from our ablest associates, in various parts of the country, papers to be presented to the sections, and that due notice of the names of the writers be given in the medical journals before the meeting.

Referred to special committee, composed of President Bowditch and Dr. Davis.

Dr. Woodward moved the adoption of the following resolution:

Resolved, That from this meeting and hereafter the practice of printing in the transactions of the Association the so-called verbatim reports of the debates in the sections be discontinued, and that the reports of the sections be limited to the papers presented and recommended by the section for publication, and such minutes as may be naturally read before the section. Adopted.

Dr. Hildreth, of West Virginia, moved that no paper be referred to the Publication Committee unless it had actually been read before the appropriate section Laid on the table.

The usual vote of thanks was tendered to the Committee of Arrangements, to the citizens of Chicago for their hospitality, and to the Northwestern railroad for courtesies.

The retiring president thanked the Association for the honor of the presidency; compared the behavior of the session just passed with what happened in the Baltimore session some years ago; sketched some of the earlier meetings, and introduced his successor, Dr. Richardson, of Louisiana.

The new president said that he had abundant reason to feel especially and profoundly grateful for the honor conferred upon him, since the majority of the members did not know him, and accordingly he looked upon his elevation to that dignified position as a compliment to the distant South-west. In the name of those states, and particularly of his own, he again returned them thanks. The fact of his succeeding the illustrious gentleman who had just retired from the chair, made him feel but the more embarrassed, but he felt assured that the great generosity which had placed him in that position of honor would not be wanting to him in the hour of his trials, and would forgive any mistakes.

The Association then adjourned till next June.

SECTION WORK.

On the first day the section on Practical Medicine, Materia Medica and Physiology listened to Dr. A. B. Palmer's paper upon the "Effects of Quinine in the Treatment of Pneumonia." It was discussed by Dr. Palmer, Dr. Gallagher, Dr. Hibbard, Indiana, Dr. Scott, of Ohio, Dr. Yandell, of Kentucky, and others. Dr. John Morris, of Maryland, read a paper entitled "Effects of Remedies in Small Doses." In the section on Obstetrics, etc., the secretary read the paper of Dr. W. H. Byrd, of Quincy, Ill., upon "Surgical Treatment of some of the Diseases of the Female Urethra." Dr. Martin, of Massachusetts, also read a paper by Dr. G. Kimball, of Massachusetts, on "Extirpation of the Uterus," which gave rise to an animated discussion. Dr. Bozeman, of New York, read a paper entitled "Is Closure of Vagina ever Necessary for the Cure of Vesico-Vaginal Fistula?"

In the section on Surgery and Anatomy, Dr. J. T. Hodgen, of Missouri, treated the "Value of Extension in the Treatment of Fracture of the Femur." This subject elicited such a spirited discussion that no further business was transacted this P. M. The section adopted two resolutions.

Resolved, That in fractures of the thigh, notwithstanding the judicious employment of every mechanical contrivance hitherto devised, shortening of the limb is of frequent occurrence.

Resolved, That it is the opinion of this section that shortening in case of fracture of the long bones is the rule in practice, regardless of any of the plans of treatment now in use.

In the section on Medical Jurisprudence, Chemistry and Psychology, Dr. J. P. Gray, of Utica, N. Y., read an essay on the "Relations of Spiritualism to Medical Jurisprudence," and the remainder of the afternoon was employed by Dr. Seguin in reading his paper on the "Need of Hygienic Precaution and Physiological Rules in the Conduct of Schools"

In the section on State Medicine and Public Hygiene, Dr. J. L. Cabell, of Virginia, read an exhaustive essay on "The Etiology of Enteric Fever."

On the second day in the section on Practical Medicine, Dr. N. S. Davis read a report on "Clinical and Meteorological Records," and he was followed by Dr. C. Denison, of Colorado, with "Cases showing the Influence of Colorado Climate on Consumption."

In section No. 2 the greater part of the afternoon was occupied in the exhibition and explaining of gynæcological instruments.

In section No. 3, Prof. Gross read a paper from his son on "Stricture of the Urethra from Masturbation, and its Pathological Significance." Dr. Briggs, of Tennessee, gave the session a lively hour or two by the discussion which his paper "Medio-bilateral Lithotomy" excited. Dr. Sayre followed with a short paper upon the "Treatment of Fractured Ribs by Extension and Expansion of the Chest, and Retention by Plaster of Paris Bandages." The fourth paper, entitled "Conservative Surgery," by Dr. Quimby, of New Jersey, concluded the afternoon's work.

In section IV, Dr. R. J. Patterson made an interesting opening by his paper, "Do Facts Justify the Recognition of Moral Insanity as a Distinct Form of Mental Disease?"

After the discussion followed the paper of Dr. G. A. Buckham of Michigan, entitled "Medical Testimony, with Special Reference to Cases of Insanity." In section I, Dr. P. R. Black, of Newark, Ohio, read an able paper on the "Relation of Heredity to Race, Degeneration and Improvement." Dr. A. N. Bell, editor of the Sanitarian of New York, then read his interesting paper on the subject of "Tuberculosis." He showed the danger to infants of imbibing tubercular consumption through milch-cows, by the use of milk from the cows infected with the disease. From a large number of experiments which he cited, he thought there was no doubt upon the contagiousness of tubercle through the medium of tubercular meats, so that the strictest police inspection of public meat markets should be instituted and tubercular meats thrown away, and heavy fines, and severe punishments follow the sale of prohibited articles. Dr. Comegys, of Cincinnati, Ohio, read a brief paper on "State Medicine" which was not adopted.

On the third day, section I., heard the report of Dr. H. A. Martin, on "Bovine Vaccination." Dr. L. B. Bulkley, of New York, read a paper on "The Recognition and Management of the Gouty State in Diseases of the Skin." Dr. F. H. Davis, of Chicago, read a paper on "Chronic Diseases of the Respiratory system " In section No. II, the chairman concluded his annual address and discussions followed. On section No. III, Dr. Woodberry, read for Dr. Benjamin Lee, of Pennsylvania, and exhaustive treatise on "Suspension as a Means of Treatment in Spinal Diseases." Dr. S. D. Gross, read an interesting paper on "The Immediate or Proximate Cause of Pain." Dr. S. J. Jones on "Recent advances in Otology." Dr. Link on, "Open Air Treatment of Wounds"; Dr. Martin, of Boston, on Varicose Ulcers.

Section IV had no papers for the afternoon and accordingly adjourned. In section V, Dr. Elisha Harris, of New York, read a paper on "The Results of State Legislation on Public Health."

Certain matters specially relating to the profession in Michigan are best stated together. It will be remembered that at the annual meeting of the Association in Philadelphia last year, charges of "irregularity" were made against the Michigan State Medical Society, and Drs. Foster Pratt, of Kalamazoo, and G. K. Johnson, of Grand Rapids, because of the efforts made by them to obtain a law erecting a State Board of Medical Examiners. At that time those charges were referred to a committee of the Judicial Council. On Thursday morning, June 9, this committee reported as follows:

Through the courtesy of Dr. Wm. B. Atkinson, Secretary of the Association, we are enabled to present our readers with a verbatim copy of the decision in this case, for the information of the profession in Michigan and elsewhere.

Report of Judicial Committee: Your committee appointed to consider the charges made by Dr. George E. Frothingham, against the Michigan State Medical Society, and against Dr. Foster Pratt, of Kalamazoo, and Dr. G. K. Johnson, of Grand Rapids, Michigan, at the meeting of the American Medical Association, 1876, respectfully report as follows:

First, That we find said charges both against the Society and the two members named, relate exclusively to one subject, namely; the advocacy on the part of the society of the enactment of a law by the Legislature of Michigan, establishing a State Board of Medical examiners and the appointment of a committee to confer with Homœopathic practitioners in relation to the propriety of having the Board contain representations from so-called different schools of medicine—in other words a mixed Board similar to that which exists in the Province of Ontario, Canada.

Second, That the acts thus charged *relate exclusively to matters of legislation and governmental policy; concerning which every physician as well as other citizens must be allowed full liberty of opinion and expression*; and that they have *no relation* to the question of *consulting with irregular practitioners* at the bedside of the sick as contemplated by the code of ethics; therefore we recommend for adoption by the council.

Resolved, That the charges against the Michigan State Medical Society, and Drs. Pratt and Johnson, by Dr. Frothingham, be dismissed as having no bearing upon the professional character of either the society or the individuals named.

N. S. Davis,
S. N. Benham,
Committee.

This report was adopted by the Council, given to the Association as before stated, and is final. Another matter of interest is the following statement of charges preferred against the Michigan State Medical Society. By courtesy of Dr. N. S. Davis, we are able to present an exact account of those charges.

To the American Medical Association:—I hereby charge the Michigan State Medical Society with a disregard and violation of the ethics of the Association in this, to wit: That on the 10th day of May, 1877, at the annual meeting of said Society, held at Battle Creek, Michigan, it elected Dr. Edward S. Dunster as a delegate to this Association, well knowing that he, the said Dr. Edward S. Dunster as the Professor of Obstetrics, and Diseases of Women and Children in the Medical Department of the University of Michigan, during the scholastic term for the year 1876–1877, did aid and abet in the teaching and graduating of students in an irregular and exclusive system of medicine. For which election the said State Medical Society of Michigan has forfeited its right to representation in this American Medical Association.

W. W. Jones, of Ohio.

Chicago, June 7, 1877.

These charges were referred to the Judical Council to be reported upon at Buffalo, January, 1878.

In the meantime it will be wise for members of the Michigan State Medical Society to study those charges, and to prepare to defend themselves and the society. Important questions are at issue and must be met. E. A. C.

Association of American Medical Colleges.

Most of our readers will remember that in June, 1876, representations of numerous medical colleges convened in Philadelphia, that various matters were discussed in the two day's session and that a committee was appointed to draw up Articles of Confederation; a Constitution and By-Laws, the same to be submitted in 1877, The meeting last year was organized into the "Provisional Association of American Medical Colleges." In compliance with the call of its President, Prof. J. B. Biddle, this Association convened at the Palmer House, Chicago, June 2d. The call invited all medical colleges represented at the meeting of the Association held in June, 1876, to send delegates, as also all chartered medical colleges in the United States recognized as "regular" by the colleges already represented in the Association. The roll being called, the following responded:

Jefferson Medical College, Prof. J. B. Biddle; College of Physicians and Surgeons, New York, Prof. E. Curtis; Medical Department of the University of Louisville, Prof. L. P. Yandell, Jr., Prof. J. M. Bodine; Hospital College of Medicine, Louisville, Prof. D. S. Reynolds, Prof. William Bailey; Medical Department, University of Iowa, Prof. E. F. Clapp, Prof. W. F. Peck; Chicago Medical College, Dr. N. S. Davis; Indiana Medical College, Prof. J. A. Comingor; Medical Department of Wooster University, Prof. W. J. Scott, Prof. H. J. Herrick; Cleveland Medical College, Prof. J. H. Bennett, Prof. J. M. Himes; Detroit Medical College, Prof T. A. McGraw, Prof. L. Connor; Starling Medical College, Prof S. Loving; Medical Department University of Vermont, Prof. A. G. Woodward; Medical Departments University of Nashville and Vanderbilt University, Prof. T. A. Atchison; Missouri Medical College, Prof. A. P. Lankford, Prof. P. D. Robinson; Keokuk College of Physicians and Surgeons, Prof. J. J. Angear, Prof. J. C. Hughes.

On motion, the President appointed a Committee on Credentials, consisting of Drs. Yandall, Scott, and Connor. This Committee reported favorably upon the following:

Dartmouth Medical College, Prof. E. S. Dunster; Kansas City College of Physicians and Surgeons, Prof. T. B. Lester; Medical College of Virginia, Prof. T. B. Cunningham; Miami Medical College, Prof. J. A. Murphy; Louisville Medical College, Prof. C. W. Kelly; Department of Medicine and Surgery, Michigan University, Prof. Donald McLean; Woman's Hospital College of Chicago, Prof. Charles W. Earle; Medical Department Louisiana University, Prof. T. G. Richardson; College of Physicians and Surgeons of Indiana, Prof. R. N. Todd and Prof. John E. Link; Rush Medical College, Chicago, Prof. Moses Gunn.

The Committee were unable to decide on the case of the Fort Wayne Medical College, as objections had been received from the Secretary of the Allen County Medical Association, of Indiana. After some discussion the protest was read, and Messrs. Meyers and Clark, representatives of the Fort Wayne Medical College, stated their view of the case, which was finally referred to a special committee, consisting of Drs. N. S. Davis, J. J. Augiar, and Charles W. Earle. This committee reported that the communication contained no definite specifications, and was written in censurable language. They also found that the Fort Wayne school had followed the usual method in its plan of organization and practice in all respects except that it accepted four years of practice in lieu of one course of lectures. They therefore recommended the admittance of the Fort Wayne delegates which was so ordered.

The National Medical College of Washington, D C., the Howard University of Washington, the Texas Medical College Hospital of Galveston, and Medical Department of Willamette University, Salem, Ore., and the Medical College of the Pacific, San Francisco, sent letters approving of the objects of the Association, which were received and read.

The report of the Special Committee on Constitution and By-Laws was presented by Prof. Edward Curtis and printed copies were distributed to the members present. The Secretary read the document, which was considered by sections.

The discussion and adoption of this document occupied the remainder of Saturday.

We have not space to present the entire document; some idea of the nature of the Association may be gathered from the following quotations. In general it may be said that instead of disputing and fighting one another respecting their differences, the Associated Colleges propose to aid one another upon all points of agreement. Mutually helping each other they will be able to render it advantageous for all colleges to unite in a general movement all along the line.

The name of the Association shall be the American Medieal College Association, and its objects the advancement of medical education and the establishment of a common policy among medical colleges in the more important matters of college management. Art. III. provides for a President, Vice President, Secretary, and Treasurer, to serve one year, and to be perpetually eligible for re-election. The article in regard to membership reads as follows:

1. Any chartered medical school in the United States which shall conform and subscribe to the articles of confederation of of this Association may become a member of the same.

2. Any college member who shall be convicted upon trial of willful violation of any of the articles of confederation of the Association, or which shall fail to make answer to such charges of such violation, duly preferred, at the meeting at which the same come up for trial, shall thereby forfeit its membership in in the Association.

3. Any college which shall thus have forfeited its membership, or any college whose original application for membership shall have been rejected by the Association, shall not be eligible for membership again until a period of two years shall have elapsed since the time of forfeiture or rejection.

Art. V. Provides for annual meetings in May or June, and the remaining articles relate to the method of proposing amendments to the constitution.

The by-laws provide for admission of colleges, trial of members, affiliated colleges to be admitted, assessments, and the like.

The articles of confederation are more important, and read as follows:

ARTICLES OF CONFEDERATION.

(*To be subscribed and conformed to by all the Colleges of the Association.*)

ARTICLE I. OF THE FACULTY.

The medical members of the Faculty must be *regular* graduates or licentiates and practitioners of medicine, in good standing, using the word "regular" in the sense commonly understood in the medical profession

ARTICLE II. OF TUITION.

SECTION 1. The scheme of tuition shall provide for a yearly systematic course of instruction covering the general topics of Anatomy, including Dissection, Physiology, Chemistry, Materia Medica and Therapeutics, Obstetrics, Surgery, Pathology and Practice of Medicine. The collegiate session, wherein this course is given, shall be understood as the "regular" session.

SEC. 2. Said Regular Session shall not be less than twenty weeks in duration. This Section to go in force at and after the Session of 1879-80.

SEC. 3. Not more than one regular session, counting the regular session as one of the two courses of instruction required for graduation, shall be held in the same year.

ARTICLE III. REQUIREMENTS FOR GRADUATION.

No person, whether a graduate in medicine or not, shall be given a diploma of "Doctor of Medicine" who shall not have fulfilled the following requirements, *except* as hereinafter provided for in Article IV.:—

1. He must produce satisfactory evidence of good moral character, and of having attained the age of twenty-one years.

2. He must file a satisfactory certificate of having studied medicine for at least three years under a *regular* graduate, or licentiate and practitioner of medicine, in good standing, using the word "regular" in the sense commonly understood in the

medical profession. No candidate shall be eligible for final examination for graduation, unless his term of three years study shall have been completed, or shall expire at a date not later than three months after the close of the final examinations, this clause to take effect at and after the session of 1879–80.

3. He must file the proper official evidence that, during the above-mentioned three years, he has matriculated at some affiliated college, or colleges, for two regular sessions, and in the course of the same (except as provided in 4,) has attended two full courses of instruction on the seven topics mentioned in Article II. But the *latter*, at least, of the two full courses must have been attended at the college issuing the diploma. No two consecutive courses of instruction shall be held as satisfying the above requirements unless the time between the beginning of the first course and the end of the second is greater than fifteen months.

4. In case a college shall adopt a systematic graduated scheme of tuition, attendance on the whole of the same shall be equivalent to the requirements mentioned in 3 ; *provided* such scheme includes instruction in the seven topics mentioned in Article II., and requires attendance at least two yearly regular Collegiate Sessions of not less than twenty weeks' duration each.

5. The candidate must have passed a personal examination before the Faculty on all seven of the branches of medicine mentioned in Article II.

6. He must have paid in full all College dues, including the graduation fee.

ARTICLE IV. OF HONORARY DEGREES.

An honorary degree of "Doctor in Medicine" may be granted in numbers not exceeding one yearly, to distinguish physicians or scientific men of over forty years of age. But in such case the diploma shall bear across its face the word "Honorary" in conspicuous characters, and the same word shall always be appended to the name of the recipient in all lists of graduates.

ARTICLE V. OF FEES.

SECTION 1. All fees shall be paid in lawful money, and no promissory notes or promises to pay, shall be accepted in lieu of cash for payment of fees.

SEC. 2. No ticket, or other certificate of attendance upon college exercises, shall be issued to any student until the dues for the same shall have been fully paid.

SEC. 3. The established fees for the exercises of the regular session, except the matriculation fee, graduation fee, fee for dissections, may be reduced not more than one-half to graduates of other affiliated colleges of less than three years' standing, and to under-graduates of the same who have already attended two full courses of the instruction of the regular session.

SEC. 4. The same fees may be remitted altogether to a college's own alumni, to graduates of other affiliated colleges of three years' standing—the three years dating from the time of graduation and ending at the close of the regular session for which the tickets are given—to under-graduates who have already attended two full courses of the instruction of the regular session, the latter of which, at least, shall have been in the college making the remission, and to theological students, when not candidates for a diploma.

SEC. 5. The same fees may be reduced or remitted to deserving indigent students, to a number not exceeding five per cent. of the number of matriculants at the previous regular session of the college.

SEC. 6. Under no circumstances whatever, other than the above, shall the Faculties, or any members of the same, grant, *upon their own authority*, any remissions or reductions of established fees. And it is distinctly understood and agreed that the Faculties will discountenance and oppose the authorizing by governing Boards of the admission of individual students upon other than the regularly established charges for their grade.

SEC. 7. Remission or reduction of fees for other exercises than those of the regular session, return to a student of any monies after payment of fees, or an appropriation of funds of the college for payment of any student's fees, or part thereof, shall be deemed violation of the provisions of this article in regard to remission or reduction of fees.

ARTICLE VI. OF RECOGNITION OF OTHER COLLEGES.

No college shall admit to the privileges accorded in Articles III. and V. the students or graduates of any college which, during any period of the student's or graduate's pupilage, shall have been excluded from the list of affiliated colleges recognized by the Association.

ARTICLE VII. AMENDMENTS.

Amendments to these Articles shall be proposed and adopted in the manner prescribed for amendments to the Constitution.

Having finally adopted a Constitution, By-Laws and Articles of Confederation, Dr. Edward Curtis, of New York, offered the following:

Resolved, That the Provisional Association of American Medical Colleges do now adjourn *sine die.*

Resolved, That the American Medical College Association do now organize under the officers of the former Provisional Association, with the constitution, by-laws, and articles of confederation adopted at the last meeting of the Provisional Association, and that colleges represented by delegates at the Provisional Association, and eligible for membership to the present Association under its constitution, be now called upon seriatim for the subscribing by the delegates to the constitution, by-laws, and articles of confederation.

The resolutions were adopted, and the delegates signed the roll as follows: Jefferson Medical College, J. B. Biddle; College of Physicians and Surgeons, Medical Department of Columbia College, New York, Edward Curtis; Medical Department, University of Louisville, J. M. Bodine and L. P. Yandell, Jr.; Hospital and College of Medicine of Louisville, William Bailey and Dudley S. Reynolds; Medical Department, Iowa State University, W. I. Peck and E. F. Clapp; Chicago Medical College, Medical Department of the Northwestern University,

N. S. Davis; Medical Department, University of Wooster, O., W. J. Scott and H. J. Herrick; Cleveland Medical College, Medical Department Western Reserve College, Isaac M. Himes; Detroit Medical College, E. W. Jenks, Theodore A. McGraw, and Leartus Connor; Starling Medical College, Starling Loving; Medical Department University of Vermont, A. T. Woodward; Medical Department of the Nashville and Vanderbilt Universities, John H. Callender and T. A. Atchison; Missouri Medical College, St. Louis, P. Gervais Robinson; Dartmouth Medical College, Hanover, N. H., E. S. Dunster; Kansas City College of Physicians and Surgeons, T. B. Lester; Miami Medical College of Cincinnati, O., John A. Murphy; Louisville Medical College of Louisville, Ky., C. W. Kelly, E. S. Gaillard; Department of Medicine and Surgery of the University of Michigan, Donald MacLean: Rush Medical College, Chicago, Moses Gunn; Medical Department of the University of Louisiana, T. G. Richardson; Indiana Medical College, John A. Comingor; Medical College of Fort Wayne, Ind , H. A. Clark; Woman's Hospital Medical College of Chicago, Charles W. Earle.

Dr. McGraw, of Detroit, offered the following resolution;

Resolved, That each and every confederated college publish in the annual circulars and catalogues, the names of all confederated and affiliated colleges beginning with the announcements of 1878.

The resolution was adopted without debate, as was also one providing for an assessment of $5 per college to meet current expenses.

The election of officers of the permanent Association for the ensuing year was then taken up.

Prof. Edward Curtis, nominated for President, Prof. J. B. Biddle, of Philadelphia; for Vice President, Dr. N. S. Davis, of Chicago; and for Secretary and Treasurer, Prof. L. Connor, of Detroit. The election of all these officers was unanimous, and the result was received with much applause.

Prof. Biddle, in returning thanks for the compliment paid him, said that he thought they had reason to be extremely well satisfied with both the quantity and quality of the work done so far.

Dr. N. S. Davis on taking his seat remarked that he hoped they would sink all minor differences and work together for the common good of the profession and of humanity.

A vote of thanks to the Committee, which through its able Chairman Prof. Edward Curtis of N. Y., had prepared the Constitution, By-Laws, and Articles of Confederation was unanimously adopted, and the Association adjourned *sine die.*

We have not space to dwell upon the importance of the organization thus affected. Should any desire the official report, it can be had by writing to the Secretary, at Detroit, Mich. The general spirit of the meeting was even better than last year. All physicians will agree that the Articles of Confederation are the least that any school should require, and they will look with distrust upon all colleges who do not soon unite with the Association. Abundant provision is made for those who are in advance; and there is no valid reason why they should not add their influence to promote the common good. Let all colleges not in the Association at once take the proper steps to become enrolled therein. L. C.

Association of American Medical Editors.

This Association convened at Chicago, Monday evening, January 4th. The annual address was delivered by the President, Dr. H. C. Wood, of Philadelphia. His first proposition was, that America had no great Medical Journals, only "a multitude of small fry" Secondly, he raised the war cry "down with the transactions" of our State, national and local societies. Thirdly, he attacked the subject of medical education. The "extent and virulence of this curse" he passed in silence. As to reform he believed that there were only two plans now favorably considered by the profession, viz: the endowment of medical colleges and the appointment of Governmental Examining Boards.

Of those he considered the first impracticable, and if prac-

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Purpura Hæmorrhagica. — Cases of idiopathic purpura hæmorrhagica are, I think, sufficiently rare to warrant me in reporting one which came under my observation lately.

March 22nd, I saw, in consultation with Dr. Georg, of this city ——— aged six. This was on the third day of her illness, of which I received the following brief history: Although not a rugged child, she was never by her parents regarded as sickly, and was regularly sent to school. On the evening previous to the appearance of the eruption she attended a children's party, and participated in the dance, which was a part of the amusement of the occasion. On the morning of the day of eruption she went to school in her usual health; at noon she was suddenly seized with severe pains in her feet, and being unable to walk, was carried home. Dr. Georg saw her at 4 P. M. of the same day, and on removing her stockings, found the feet and the legs half way to the knees of a deep purple, almost black color, the line of demarkation being abrupt and clearly defined. Temperature normal; pulse 85. Ordered stimulants and quinine with nitro-muriatic acid.

On the following morning he found that the color had almost entirely disappeared from the feet and legs and had appeared somewhat intensified in the thighs and axilla. Treatment continued.

Thursday I saw her with the doctor, and found discoloration of the lower part of the abdomen and a spot on the back below the left shoulder blade in addition to that which was present on the previous day. Pulse, 102; temperature, 101°. I was surprised to find such deep discoloration, and before inspecting it closely, inquired of the doctor whether he had been applying iodine, the color being easily mistaken for the deep shade produced by repeated applications of the tincture of that article. The pain in the feet was the only discomfort complained of.

We decided to give Tr. Ferri Mur. combined with Liq. Ammon. Acetatis. Dover's powder was given to relieve pain. The prognosis was given as most doubtful. She passed the following night comparatively easy, but began to sink towards morning, and so rapidly that death supervened at 5 A. M.

An autopsy was conducted twelve hours after death in the presence of Drs. Yemans, Davenport, Georg and myself. The discoloration was as deep as before death, not the least fading having taken place. The ecchymosed spots were very soft, offering but little resistance to the introduction of the knife. The puncture was followed by a flow of reddish serum, the redness being due to the presence of abundant red corpuscles, as revealed under the microscope. This fluid penetrated and infiltrated not only the areolar tissue but also the adipose, of which latter there was a liberal layer. The examination of the viscera was attended by negative results, the only notable appearance being a very anæmic condition of these organs. The cavities of the right heart were filled with a bloody serum similar to that which infiltrated the areolar and adipose tissue in the ecchymosed spots.

Dr. Yemans remarked that he was in doubt as to whether the case was one of real purpura hæmorrhagica. There was no bleeding from the mucous surfaces, which was always very profuse in real hæmorrhagic purpura. Although there was a good deal of pain he should regard the case as one of purpura simplex.

Dr. Mulheron thought the severity of the symptoms warranted his classing the case as of the hæmorrhagic variety, not only the areolar but the adipose tissue being infiltrated with the extravasated blood.

It was true that hæmorrhage from the mucous surfaces was considered by some as pathognomic of this variety of the disease, but he did not think it occurred in all cases.

Dr. Lundy said he had attended two cases of purpura, one of which had hæmorrhage from the bowels and there was also severe pain. Both recovered in a week or ten days under the administration of iron.

Dr. Eugene Smith said an albino had recently been brought to him to see if anything could be done for the unsteady motion of the eyes peculiar to albinos. It was, of course, incurable.

He thought it remarkable that two out of nine children born of very dark-skinned parents should be albinos. Such a thing was unknown in the previous history of the family, and there was no consanguinity of marriage.

He also reported having seen a case of ivory exostosis, the growth filling the auditory canal so as to cause deafness. Several attempts at removal had been made under the supposition that it was a white bean. An examination was made under anæsthetics, when its true character was discovered. It did not occur to him at the time, but under like circumstances again he should attempt removal with a dentist's drill.

THEO. F. KERR, M.D.,
Secretary.

MAY 7, 1877.

President Jas. A. Brown, in the chair.

Dr. Lewitt exhibited a patient to the Association and read the following notes on the case as exhibiting the results of fistulous empyema:

G. C. Mc., aged 44 years, in September, 1849, was struck in the right mammary region by a base ball. Nothing was noticed until March of the succeeding year, when he was attacked with all the symptoms of pleurisy and was sick abed for eight weeks. He was not able to leave the house for a year after, during which time he was troubled with a cough, the sputa being, as he says, "pure matter." About a year from the time of receiving the injury, he noticed a slight swelling about the region where he was struck. This swelling did not increase in size, but about six months from the time that he first noticed it, a sudden discharge of pus took place, he thinks as much as two gallons escaping from the opening. After this there was a constant discharge of pus for two years, when the fistula closed, but only for a short time; it would open at intervals. During the next five years, two other fistulae appeared, which would also occasionally heal up for a short time. At the end of seven years all three openings closed and have not since troubled him. He says that his cough was always worse when any of the fistulæ were closed, and after the first discharge of pus he began to improve and was soon able to be about again. He first noticed the sinking of the chest walls about a month after the discharge of pus and this kept increasing for sixteen years.

We notice that the patient is very anæmic, that the pulse is quite weak and the circulation poor, his fingers being always cold. The spine exhibits considerable lateral curvature. The chest walls are very much depressed and the cicatrices of the fistulæ are to be seen.

By percussion on affected side, we find, in front, very slight resonance at the apex and dullness on the rest of that side; behind, we find flatness over the whole part.

By auscultation, we find tubular breathing over most of the side which diminishes in intensity as we go from the median line. The voice sounds are very much exaggerated, particularly toward the apex. The left side exhibits signs of emphysema. On examining the heart, we find the second sound increased in intensity and the first sound diminished. It will also be noticed that the apex beat can neither be seen nor felt.

Dr. Shurly remarked that in all cases of pleurisy with effusion the fluid should be removed at the earliest possible moment, even if the operation has to be repeated. It is of the utmost importance to preserve the function of the lung and this could be done by an early operation, even though empyema might result.

Dr. Mulheron said he had recently attended the *post mortem* of one who had died from the effects of pleuritic effusion. Although paracentecis thoracis had been performed ten months before death and a fistulous opening maintained, no relief followed the. operation. The lung was compressed against the spine into a small, hard mass about the size of the fist. The cavity of the pleura was filled with air and its inner surface covered with a greenish mold. There were no signs of a pleuritic membrane.

Dr. Shurly again remarked that this case illustrated the necessity of an early operation in order that the function of the lung should be restored after it was lost by compression. Relief would almost always be obtained if the operation was done at the right time. He had seen a number of cases during his hospital service and since, and quite recently had had an opportunity of seeing a successful case. A certain proportion were however, unsuccessful, as in all surgical cases.

Dr. Eugene Smith read the following notes, "Blepharitis a frequent result of Ametropia."

During the session of the International Medical Congress at Philadelphia, my attention was drawn to the errors of refraction as a probable cause of inflammation of the edges of the lids, by my friend Dr. P. D. Keyser, who informed me that for about 18 months or two years he "had made it his invariable rule to examine all cases of blepharitis for errors of refraction," and had found in many cases that such existed. A short time subsequently, Dr. Roosa, of New York, presented a paper, entitled "On the Relations of Blepharitis Ciliaris to Ametropia," to the International Ophthalmological Congress, held in New York last September, which provoked quite a little discussion on the part of the members present from Great Britain, they seeming to think blepharitis essentially a disease of the lower classes. This may be so in their country, and really one could easily imagine that such is the case, if he were to attend the various hospitals for a short time, but to the fact that such is *not* the case in *this country*, I wish to add my testimony. Not being connected with any of the hospitals, but enjoying a large private practice in ophthalmology, I see many cases of blepharitis ciliaris among the better classes, and since last September, I have found out of eleven cases, *but one* which did not have hypermetropia. All oculists know how stubborn and unyielding many cases of this disease are to treatment, and I have known cases to last for months, regardless of all treatment. From my experience in treating this class of eye disease, since my attention was called to the possible connection between it and hypermetropia, I have been surprised at the rapid response to treatment, when the refractive error has been corrected, of a majority of the cases. One case only has proved really stubborn, but this was a chronic case and the patient, an ice dealer of this city, was at work on the ice and in the cold during the entire treatment. The trouble with the edge of the lid does not seem to be influenced particularly by the degree of ametropia, but simply requires, as it were, a sufficiency to produce asthenopic symptoms, the resulting hyperæmia probably causing the lid trouble. It requires also, for its developement, in my opinion, a predisposition on the part of the patient, to lid affection.

I mean by this, that persons who suffer much from acne, persons of lymphatic temperament and of light or sandy complexion. These are the ones who seem to be predisposed to lid affections, and the lid trouble is invariably increased when the eyes are used on close work (sewing or reading.)

I do not think it necessary to take up your time with the particulars of individual cases, as they differ but little from each other. I am well aware that the number of cases I offer goes but a small ways towards proving that a majority of cases of blepharitis are caused by ametropia, yet the coincidence would tend to the adoption of Dr. Roosa's conclusion, that "ametropia seems to be the condition of most eyes affected with blepharitis ciliaris."

Dr. Connor remarked that in long continued inflammation of the eyes he had found it necessary to examine for errors of refraction. When he began to do this in his own practice he very soon discovered that the disease was frequently due to overwork. He had seen cases of so-called "granular lids" recover with the use of proper glasses. Dr. Smith had done good service in throwing light on a simple disease which was often very annoying to the general practitioner.

Dr. Yemans reported that he had recently been called to see a child suffering from severe epistaxis but which soon ceased. Next morning the entire surface of the body and extremities was covered with petechiæ and there was hæmatemesis, hæmaturia, and hæmorrhage from the bowels. The child was five years old and during the day he administered six grains of ergotin. The hæmorrhages ceased and the child recovered from what he considered an attack of purpura hæmorrhagica.

Dr. Carstens inquired if there was any way to tell the difference between purpura hæmorrhagica and purpera variola. He had seen some cases of this character when small pox was prevalent and was never sure that the disease would not have developed into real hæmorragic small pox if the patients had lived long enough.

Dr. McGraw briefly detailed the history of a patient, the subject of a multilocular ovarian cyst of nine months growth. Three months ago he had strongly advised an operation, but it was persistently refused. Quite recently he had been called to Utica to see the patient, whom he found in a moribund state. The cyst did nof rise above the umbilicus, but a large tumor, the size of a newly born child's head, distended the perineum. An examination showed that the tumor lay posteriorly to the vagina and anteriorly to the rectum. It did not disappear when the patient reclined, and he excluded rectocele, as Atlee claims that this tumor always recedes when the patient assumes the recumbent posture. The Dr. believed it was the cyst which had occupied the recto-uterine space and gradually forced itself downwards and outwards between the walls of the recto-vaginal septum. He punctured it for the sole purpose of removing the fluid and giving temporary relief from the dyspnœa, which it did. The fluid smelled like urine, and he feared he had tapped a cystocele, but a microscopic examination revealed the presence of the characteristic corpuscle of the ovarian cyst.

MISCELLANEOUS BUSINESS.

The President announced the following members of the Committee on Nominations: A. E. Carrier, one year; C. C. Yemans, two years; R. A. Jamieson, three years; C. J. Lundy, four years; E. L. Shurley, five years.

Adjourned.

THEO. F. KERR, M.D.,
Secretary.

Abstracts From Exchanges.

Practice of Medicine.

SUPPRESSION OF THE SALIVARY SECRETION.—(*Can. Med. & Surg. Jour.*, April, 1877.) Dr. D. Baynes relates the details of one of those rare cases occurring after an attack of acute tonsillitis. Both Steno's and Wharton's ducts were found open on examination. The patient said that his tongue felt too large for his mouth, and that the latter seemed filled with tallow. He was continuously obliged to wash his mouth or drink both night and day to prevent the choking sensation experienced from the dryness of the mucous membranes. After three weeks' ineffectual treatment by stimulating gargles and internal remedies, a copious flow of saliva was induced by passing for ten minutes the frequently reversed current of a 12 cell zinc-carbon galvanic battery through the parotid gland, the negative pole being connected to a probe placed in Steno's duct, while the positive was applied to the nape of the neck.

NUSSBAUM'S NARCOSIS.—(*Neues Rep. of Pharm.*, 1876. *New Remedies*, Mar. 15, 1877). The peculiar state called Nussbaum's narcosis, produced by the subcutaneous administration of a few centigrammes of morphia, about fifteen minutes previous to placing a patient under the influence of chloroform has already been known for some time, and made use of with great benefit during operations in the mouth or in the fauces, as the full anæsthetic effects of the chloroform are preserved while the loss of consciousness is by no means complete. Still better results have lately been obtained by substituting a subcutaneous injection of a few centigrammes of muriate of narceine for the morphia. The hypodermic solution is best made as follows: 0.3 gm. of muriate of narceine are mixed with 20 gm. of destilled water in a flint or test-tube; the latter is placed in a water motor and heated until the salt is dissolved.

Therapeutics.

USES OF BROMIDE OF CAMPHOR.—(*London Lancet,* March, 1877.)—This new drug was discovered by Swartz, in 1862, and accidentally employed for the first time by Deneffe, in 1871. Of the physiological action, it may be stated, that bromide of camphor diminishes the number of beatings of the pulse, causes contraction of the smaller blood-vessels, lowers the temperature and subsequently induces a more or less marked tendency to sleep. Deneffe, O'Hara and Berger, have employed it in delirium tremens. The first two advocate its employment as beneficial, whereas Berger makes some reservations. In insomnia and especially in the forms associated with heart lesions or cerebral hyperæmia Bourneville, Lawson and Pathault declare they have observed encouraging results. Riemer and Hammond say that it is of use in spasms or convulsions brought on by teething. Of those, who have employed it in epilepsy, some think that they have seen the fits become more and more rare under the influence of the drug, while others have only noticed a remarkable diminution in the vertigo or petit mal. Chorea and hysteria are the nervous disorders in which the bromide of camphor has been most extensively used, and with the best effects. Riemer speaks of the bromide with praise, in reference to a case of hysterical excitement. Bournevillc, in cases of epileptic delirium in females, and Tommasi in hysteria with gènital erethism and Hammond in a case of chronic hysteria. The benefit arising in hysteria from a methodical use of the drug is also highly spoken of by Profs. Vulpian, Lorain and Potain. "In cystitis of the neck of the bladder," says Dr. Lannelongue, "the action of bromide of camphor speedily shows itself. 1. When cystitis is painful and the pain is not dependent on any organic lesion (neuralgic cystitis). 2. In cystitis of the neck, having a congestive cause connected with a vascular change of the neck. 3. The action is more marked when catarrh is mild and when acute prostatis is added to inflmmation of the neck of the bladder. Dr. Petrovitz has recorded some interesting cases where painful erections during an attack of gonorrhea were speedily arrested by this remedy. It is best administered in the form of dragees for children and in capsules for adults.

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atic, as in the dorsal, luxation is above the obturator internus muscle, though in both varieties the bone leaves the acetabulum through a rent in the capsule below the muscle; hence the classification, "dorsal above" and "dorsal below," is misleading, if not invariably incorrect.

8. Dislocation through a "button-hole" is not possible, owing to the inelasticity of the capsule, and the large size of the head of the femur compared with the width of the capsule from pelvis to femur.

9 The rim of the acetabulum of itself offers no real resistance to reduction.

10. In the exceptional case of a direct dorsal luxation, the untorn muscles and capsule would resist reduction by ordinary manipulation; and this resistance would be appreciable to the surgeon.

11. Direct dorsal dislocations, or those which are said to occur during abduction, are always the result of immense violence, and are always associated with fracture of the acetabulum, or of the head of the bone, or of both.

12. Violent pain in dislocations at the hip is caused by the sciatic nerve being pressed upon or looped up by the femur; and pain or paralysis after reduction is due to the dragging forward of the nerve upon the neck of the bone, or to its rupture in the act of reduction.

13. In reducing dislocations associated with great pain, it would be well to draw the head of the bone away from the side of the innominate bone during the movements of flexion and abduction, so as to disengage the sciatic nerve, and thus prevent either of the accidents above mentioned.

Gynæcology.

TREATMENT OF PELVIC EFFUSIONS.—(*Am. Jour. Med. Sciences*, Apr. 1877.) Prof. Brickell, of New Orleans, presents his views upon the above subject in clear and decided terms. Although some speedy deaths have followed the plan of treatment which he advocates, the many which have resulted from patiently awaiting the course of nature, and the long and tiresome convalescence which must even then be effected, are but seldom considered. He summarizes as follows:

1. I have no doubt at all that there are two distinct forms of pelvic inflammation—serous and phlegmonous, or suppurative. An attack of either may be abortive; that is, may fail to result in formation of pus, or effusion of serum. But should either pus or serum be deposited, then

2. I am sure that evacuation is the proper practice; and

3. Either should be evacuated per vaginam.

4. The presence of pus in any portion of the body is not to be tolerated by the surgeon. I contend that the presence of effused serum in the pelvis is not to be tolerated either. As long as it is present, in addition to the pain and prostration present, there is the abiding stimulus to repeated inflammations and the pelvis can and will be ravaged.

5. Topical applications and internal remedies have no influence upon pelvic serous effusions, according to my observation.

Obstetrics.

INFLUENCE OF PHTHISIS UPON CHILD-BEARING.—(M. Ortega, *Revue des Sciences Medicales*, *Lancet*, Nov. 1876.)—M. Ortega made his investigations upon ninety-five such cases.

1st. Phthisis has a marked effect upon conception, for only thirteen out of his ninety-five females, although many were multiparae, bore more than one child after the detection of pulmonary symptoms, and a third pregnancy was very rare in such circumstances. In all these cases, the phthisis was in the first and second stage and in one only it was advanced.

2d. In more than one third of the cases, abortion or premature delivery took place; and in those who had a tubercular history, only one-half reached the full term of pregnancy.

3d. Phthisical mothers are unable to suckle their offspring; for eleven infants who were at first healthy, whose mothers had sufficient milk and in whom the phthisis did not develop during nor under the influence of lactation, soon showed signs of insufficient nutrition and died with enteritic symptoms.

4th. Pregnancy hastens the evolution of phthisis to a great extent, delivery being rapidly followed by the death of the mother.

5th. Both pregnancy and lactation are exciting causes of phthisis in predisposed subjects. E. C.

Editorial.

Notice to Correspondents, Etc.—Communications intended for publication, and books for review, should be addressed to "Editors of Detroit Medical Journal, care of E. B. Smith & Co., Detroit."

All remittances of money, all letters on the business of the Journal, pertaining to subscriptions or advertisements, should be addressed exclusively to the publishers, E. B. Smith & Co., corner Fort and Griswold Streets, Detroit, Mich.

Original Articles, Reports of Medical Societies, Observations, Correspondence, News, etc., of general interest, are respectfully solicited from every source. Articles should be practical and carefully prepared.

The Editors will not be responsible for statements made over the names of contributors.

The Late Annual Meetings of the State and National Medical Societies.

During the past two months most of the great medical organizations have met and adjourned. In the interval they have presented, discussed and decided many questions of general interest. The State societies, each in its own sphere, have sought to harmonize the local societies into an organic whole. The National society in turn has more firmly cemented the bonds uniting the several State societies into a single unit. From personal observation and a careful study of the published reports we are convinced that during this year, even more than previous ones, the centripetal forces of these societies have gained upon the centrifugal ones. In this unification of the profession, both State and National, these societies are deserving of the most hearty support and encouragement.

In spite of the hard times nearly seven hundred physicians were enrolled as delegates to the American medical profession. Quite a full report of this meeting will be found in other columns of this journal. In no sense brilliant, the meeting was still a credit to the profession and of infinite service. Some good work was done in the presentation of papers, addresses and discussions, and some poor work mingled with it proved that the entire profession was represented.

One other new medical organization, of national scope, was effected; viz., the "American Medical College Association." Our readers will remember that in June last year the representatives of many Medical Colleges met at Philadelphia; and after two days of conference appointed a committee to draft a plan for a permanent organization of American Medical Colleges. Said plan was duly drafted and presented to the various colleges for consideration. After receiving suggestions the Committee decided upon a plan that was deemed feasable. This plan was presented to the new meeting called in Chicago this year. With slight modification this was adopted by the meeting and signed by the official representatives of twenty-three colleges. In other pages we have given in full the "articles of confederation" upon which this Association is founded. A careful study will show any honorable physician that these are the least that should be demanded. It is expected that all the regular medical colleges of the United States will, in time, become members of the Association. No college with requirements equal to those in these articles of confederation, can lose anything; while it is sure to gain the moral support of all its associates. Clearly it is for the interests of all the colleges to have uniform high fees—long terms and many of them—to get more pay from all students. Once united on a reasonable basis, the medical colleges, backed by the profession, can absolutely control all essential features in the education of regular physicians. We may be too sanguine, but it does seem to us that such a reasonable basis has been reached, and that a more rapid advance in Medical education will take place all along the line of medical colleges. The spirit of the meeting this year was even more commendable than before, and augured well for the future.

As one of the first fruits of this organization the "Louisville Medical College" and the "Kentucky School of Medicine," both have so altered their advertisements as to state that hereafter "the beneficiary provision will be limited to five per cent for the class; that a graduation fee of $30 will be charged; that the professor's tickets will be $50 and that no two consecutive courses of instruction shall be regarded as satisfying the requirements for graduation, unless the time between the beginning of the first course and the end of the second is greater than fifteen months." The representatives of these schools joined the Association and will doubtless conform to their agreement in all respects.

The importance of a common policy by the medical schools cannot be exaggerated. It seems to us that in this way rather than by questionable legislation, are we to expect the greatest help in advancing a true medical educational system

Among the reasons why this Association should exercise an enormous influence, are the following:

(1) Its size is small. Only one delegate can represent any one college. Hence if all the fifty seven colleges in the United States were represented, there could be only fifty-seven voting delegates. This number would constitute a perfectly manageable body; one in which any question could be fully discussed by all members so desiring.

(2) The delegates are all men trained to think and speak as well as act. They are familiar with the difficulties and imperfections of the means for medical education. Hence we must expect that they shall think and speak to the point, with greater clearness and breadth than those not possessing such training. Even now the teachers of medical colleges largely give tone to most of the larger societies.

(3) Each delegate is the representative of an incorporated institution. About this latter cluster financial, professional and social interests. As all these interests are involved by any action of delegates, it is fair to suppose that the greatest care will be taken to have this action such as to honor the particular institution represented.

A union of the majority of American Medical Colleges for the mutual benefit of themselves and the profession at large, is an auspicious omen for the future of American Medicine. Old abuses will be lopped off from the present system and gradually a positive advance made all along the line. L. C.

Memoranda.

Dr. J. Marion Sims has unearthed a fourth claimant to the honor of having discovered anæsthesia, viz: Dr. Crawford W. Long, Athens, Ga. He thinks that Wells, Morton, and Jackson, also did good service in the introduction of anæsthesia. Therefore he proposes that the medical profession unite in asking congress to appropriate four hundred thousand dollars to be divided equally between the families of these four men.

The first annual meeting of the American Dermatological Association will be held at Niagara Falls, September 4, 1877.

Dr. Charles A. Budd, late Professor of Obstetrics in the Medical Department, University of New York, died suddenly May 17.

Dr. Jno. P. Reynolds has been appointed to the chair of obstetrics in the Harvard Medical School, left vacant by the death of Dr. Buckingham.

Dr. J. W. McCoy, (Ohio Medical Recorder, May, 1877), records a case in which a woman was delivered of a pair of twins just nine months and eighteen days after having given birth to a first pair of twins. Thus she brought into the world four children in less than ten months. Will some one now report a case in which the interval shall be just nine months.

Prof. Lister has accepted the position of Professor of Clinical Surgery in "King's College Hospital and Medical School," London. Arrangements have been made by which he will be able to carry out his system of clinical teaching and practicing antiseptic surgery under satisfactory conditions. Edinburgh's loss is London's gain, and the antiseptic systems will be subjected to a keen, close criticism.

Wm. W. Darling, M. D., Professor in the University of New York, and J. F. Noyes, M. D., Professor of Ophthalmology and Aural Surgery in Detroit Medical College, on recommendation of the censors, were elected from 13 honorary members of the Rhode Island Medical Society.

The Texas law regulating the practice of medicine has been greatly lauded in certain quarters. Of its practical workings the *Chicago Med. Jour.* Jan , '77, gives the experience of a northern physician, graduate of Rush Med. College. This gentleman appeared before the Board of Examiners, paid the fee, $15, passed his examination, submitted his diploma for inspection. His reward came through the postoffice in the following lines: "We decline to issue to you a certificate of qualification." It is charged that the law was designed and is executed in the financial interests of the medical men in Texas, to enable them to get, keep and control the medical practice of the State.

Sir Jas. Paget closed his Hunterian oration with the following memorable sentence : "After having studied Hunter's life and all his defects of temper and of general culture, of social skill and of all the arts of pleasing, nothing has seemed clearer than that the power of a great intellect with a strong will and a right aim, is, in the composition of life, sufficient and irresistible; and that among all the intellects and wills I have studied, not one was stronger than John Hunter's."

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

THE PRACTITIONER'S HANDBOOK OF TREATMENT, OR THE PRINCIPLES OF THERAPEUTICS. By Dr. J. Milner Fothergill. Cloth; pages, 575. 1877. Philadelphia: Henry C. Lea.

To a very considerable extent the conception of this book is novel. Williams' Principles of Medicine is the only work that at all resembles it. As this is out of date and out of print, the work before us is doubly welcome. What is the *rationale* of our therapeutic measures? To most physicians the intelligent answer of the above question is generally difficult, and ofttimes impossible. In fact, the question is too often avoided or put by with the dogmatic assertion "that my experience justifies the treatment." Such a statement is generally the end of all discussion. Its author regards his experience as the ultimatum of therapeutic knowledge. Now we grant that in the treatment of disease practical results are of the highest importance. At the same time we are firmly convinced that, other things being equal, he is the best physician who best understands how his therapeutic agents act in reaching any given result. That it is impossible at the present time to understand the action of all such agents we readily admit. But this would seem to increase our obligations to acquire and utilize all attainable knowledge respecting the action of remedies. A blind empiricism is no longer justifiable in any member of the medical profession. It is both our privilege and our duty to largely substitute knowledge for guesses, and intelligence for intuition.

The work before us is the result of a long and skilful effort to aid the profession in the performance of their duty in this respect. Each subject is introduced by a brief account of its physiology and pathology in so far as they bear upon treatment. Then in order follows the action of remedies and their practical application in concrete prescriptions.

The subjects discussed may be gathered from an enumeration of the various chapter headings, viz., Assimilation, Excretion, Body Heat and Fevers, Inflammation, Anæmia, Plethora, Congestion, Growth, Decay, Abnormal Growths, Blood Poisons, Specific Poisons, Acute and Chronic Disease, Diabetes, Rheumatism, Gout, Diatheses and Cachexiæ, Action and Inaction, the Circulatory System, the Respiratory System, the Digestive System, the Urinary System, the Reproductive System, the Cutaneous System, the Lymphatic System, the Nervous System, Public and Private Hygiene, Food in Health and Ill Health, and the Medical Man at the Bedside.

Some subjects are treated with greater fullness than others, but all contain an amount of good sense and science so combined as to amply repay the most careful study. As a literary production the book is deficient in careful proof-reading—mistakes in spelling. Slang phrases are far more common than is creditable to the author. In the next edition we hope to see these blemishes entirely removed.

In his introduction the author emphasizes the value of copious draughts of water in connection with the administration of alkalies and iron. The excess of water not only removes the offensive taste of the medicine but it possesses a positive value itself in washing waste materials from the system. Experience enables us to endorse this suggestion as one of great practical importance.

The author believes that the liver is, first, the storehouse for all excess of sugar-starch or albumen that may find its way into the blood; and, second, that during fasting the liver gives to the blood constantly of this stored up nutriment; and third, that the bile thrown into the intestines is to a large extent superfluous matter, aiding digestion, but when in excess causing diarrhœa, and when its outflow is checked causing constipation. In the transformation of albumen in the liver, urea and other analogous compounds are produced. Accepting these views as facts the author graphically portrays their value in the interpretation of a vast variety of diseases and abnormal conditions, and in the indications they offer respecting the proper treatment of such disorders. The complex functions of the liver render certain complex diseases, even of the so called functional class. In the work before us are a thousand suggestions respecting the recognition and correction of these. No practical physician can afford to pass these suggestions without careful study.

In the consideration of assimilation stress is laid upon individual peculiarities. "There are some organisms which seem to perform a maximum of work with a minimum of waste. There are others which consume a large quantity of fuel while they leave a huge quantity of ashes, etc., and only perform a small amount of work. If these latter are to be fed so that there shall be but little ash and waste they will simply perform no work at all, they will die out." Their supplies must be liberal and the removal of their waste constant. An occasional or persistent purgation prevents the re-absorption of bile by the intestines, and in every way promotes a higher standard of health in such individuals. Only by such wasteful processes can these organisms do their best work.

In this age of so-called specialism and hair-splitting refinement in diagnosis, we deem it a healthy sign that an author shall insist on the fact that we have a human being, not a disease or particular organ, to deal with. Thus after showing the vast variations of the body in different stages of inflammation and in persons of different ages, races, sexes, or other conditions. Fothergill says: "It is of far greater importance to be able to estimate accurately the true constitutional condition of the patient than to be able to form a minute diagnosis of the precise seat, extent and depth of the local mischief. It is a fatal error, too often committed, to attach too much consequence to the recognition of the local malady and to attach too little importance to the character of the constitutional disturbance attending it. * * But if paying little attention to the local affection, except so far as its characters indicate the general type of the disease, we make the constitution of our patient our guide, and deplete or stimulate according to the state in which we find it, and thus, perhaps, treat two patients with the same disease, so far as the name is concerned, on totally opposite plans, we shall not act inconsistently, but in strict conformity with the natural condition of our patient and of his disease." We fully agree with the statement that too much emphasis cannot be placed upon the power of discriminating betwixt different forms of one morbid change according to the organism in which it shows itself, and of adopting the appropriate treatment The author's views of tubercle and his peculiar use of language are both exhibited in the following quotation: "Tubercle is not a strange intruder, of foreign race and blood, amidst the mild and inoffensive cell aborigines of a viscus with grim front and lowering mien—a sort of Spanish *conquistadore* amidst inoffensive and harmless Indians—exerting a destructive and malign influence on all sides and everywhere; it is the 'ne'er-do-weel' of the tissue family, the degraded 'nought-weel' of whom there is little hope of regeneration, who will scarcely ever be converted into anything more than a harmless tax upon its blood relations, and which more frequently becomes a source of great danger to them. Tubercle is a degraded form of connective tissue, and there are various forms of degradation—some higher, some lower—but all below the standard of health. The less degraded the type, the less unfavorable the prognosis; the more degraded, the more hopeless."

We cannot make further extracts for lack of space Omitting some features of detail, this book is one of unusual interest and value to the practical physician, especially to one just entering upon active life. In no other work of our acquaintance is there so much of suggestive help respecting practical medical problems. For the good of the profession and of humanity we trust that it may be studied by thousands of physicians the world over

L. C.

THE FUNCTIONS OF THE BRAIN. By David Ferrier, M.D., F. R. S. 1876. Cloth; pages, 323. Price, $3.50.

For several years the attention of physiological students has been specially directed towards the brain. The discovery by Fritsch and Hitzig of its electric excitability opened a new method of studying the cerebral functions. The methods of the above observers were followed and extended by numerous observers, as Ferrier, Vulpian, Schiff, Sanderson, Ogle, Nothnagel, Mitchell, Ludwig, Luys, etc. Naturally different observers reached different conclusions,

Various medical journals have published the details of individual work. The volume before us is the result of an attempt to systematize Ferrier's experiments in their bearing upon the functions of the brain. In some respects it would have been more satisfactory had he treated more in detail the work of other observers. Doubtless this was impracticable in a work of moderate compass. At all events this is the only complete treatise on the cerebral functions that attempts to utilize the latest modern discoveries.

After a brief introduction follows a sketch of the structure of the brain and spinal cord, the reflex functions of the spinal cord, the functions of the medulla oblongata, functions of the mesencephalon and cerebellum, functions of the optic lobes and corpora quadrigemina, functions of the cerebellum, function of the cerebrum, phenomena of electrical irritation of the cerebral hemispheres, the hemispheres considered physiologically, functions of the basalganglia, the hemispheres considered psychologically, diagrammatic summary, cerebral and cranial topography. Numerous illustrations serve to explain and enforce the text, and a good index facilitates a ready reference.

Nowhere have we seen a better account of the topographical anatomy of the brain, or a clearer statement of our demonstrated knowledge of its particular functions. But its special value lies in its account of the relationship of the recent experimental deductions. The localization of cerebral functions is the end sought by these experiments. All physiologists admit that certain changes are wrought in cerebral cells by the impression made upon the sensory nerves including those of the special senses. But none could tell whether there was a special group of cells set apart to receive the impressions made upon the retina, and to convert these impressions into motor impulses, calling into activity any or all parts of the body. Now the work before us attempts to show that there is a definite group of cells in the cerebrum the destruction of which is followed by total blindness. All power to think of the phenomena of vision is absolutely lost. In like manner there are centres of hearing, taste, touch, speech, general sensation, equilibration, motion of groups of muscles, limbs, etc. Galvanic irritations of the centres of motion are followed by definite movements. Destruction of these particular centres is followed by loss of the power of movement, etc. It is not claimed that in all cases these centres are perfectly defined in all respects, only that they exist. Concerning details there is much dispute, but of the general fact there is no doubt. Particular sensations we now know must pass over definite nerve fibres, through definite subordinate ganglia and commissures to definite sensory cell groups in the cortex of the cerebrum. Here they must produce definite changes in the motor cells, which changes must again pass to the periphery along definite fibres and ganglia, and produce a definite activity in the particular glands, organs or muscles with which they are connected. Of course those who delight in the vague and mystical will object to this increase of positive knowledge. Those who are lazy will grumble at the necessity of new study and more work in diagnosis, pathology and treatment. It is no longer the end of discussion to affirm that a certain person is affected with brain disease. In view of the facts before us it will be incumbent upon each to show in any particular case reasons why the disease should not be exactly localized. Referring briefly to some particular results reached we must close this notice.

The destruction of the corpora quadrigemina in animals caused blindness, paralysis of irido-motor, and some oculo-motor reactions, disorders of equilibrium and locomotion, and certain forms of emotional expression. Irritation of these ganglia caused a backward start, as if some external object had been closely approximated to the eyes, trismus, general opisthotonos, dilatation of the pupils, excitation of cries, alteration of the respiratory system and a rise in blood pressure, contractions of the stomach, intestines and bladder. In short, the phenomena of electrical irritation of the corpora quadrigemina are mainly of a reflex nature, and depend on the transferrence of irritation of sensory to motor centres and tracts. The optic tracts originating in these ganglia are homologous with the posterior roots of the spinal cord.

The maintenance of bodily equilibrium depends on the co-ordination in some central organ of certain afferent impressions with special motor adjustments. The afferent factors of this mechanism are shown to be mainly of three kinds, viz., tactile, visual, and labyrinthine impressions. Marked disturbances of equilibrium result from perversion or interference with any part of this afferent system. Experiments clearly point to the conclusion that the cerebellum is the central organ of this co-ordination.

L. C.

TRANSACTIONS OF THE AMERICAN GYNÆCOLOGICAL SOCIETY. Vol. 1, 1876. Cloth; pages, 396. Boston: H. O. Houghton & Co. Price, $5.00.

For years it has been our belief that to reach the best results scientific societies must be composed of carefully selected workers in a common field, and that the numbers of each society should be limited. Societies for government need to be large but their functions are totally distinct from the scientific society. We rejoiced at the formation of the ophthalmological, otological, and neurological societies. It gives us pleasure to add to this list the American Gynæcological Society. Organized in June, 1876, it held its first meeting in Sept. 1876. Its membership is limited to sixty. The volume before us is unique in its elegance. It contains twenty-two papers in addition to the minutes of the meeting, constitution, by-laws, etc. As only twenty-eight members were present, it will be seen that nearly every one was armed with a paper. Six of the papers were on obstetrical subjects, a fact worthy of note as showing the intimate relationship between obstetrics and the diseases of women.

Dr. Robert Barnes' definition of a gynæcologist is that "he is the 'all around' practitioner, for he observes everything, beginning at the uterus." Would that we had more of such practitioners. It matters little at what organ they begin if only they go all around the patient and observe everything. It may be questioned whether, as a rule, the patient gains aught by the services of any specialist who is not an "all around" practitioner. The gynæcologists are gradually approaching the standard of Dr. Barnes, and the time is not far distant when all practitioners must do the same. The successful treatment of the diseases of any organ depends quite as much upon an ability to grasp the mechanism and relations of the entire organism as that of the particular organ affected. General practitioners must learn more special knowledge and specialists must learn more general knowledge—in fine, successful practitioners must have a similar knowledge and skill.

The annual address was by Dr. Fordyce Barker. The following is a list of the papers read: "Etiology of Uterine

Flexures with the proper mode of Treatment," Dr. Thomas Addis Emmet; "Cicatrices of the Cervix Uteri and Vagina," Dr. A. J. C. Skene; "Extirpation of the functionally active Ovaries for the remedy of otherwise Incurable Disease." Dr. Robert Battey; "On Central Rupture of the Perineum," Dr. J. Matthews Duncan; "Viburnum Prunifolium. Its Uses in the Treatment of Diseases of Women," Dr. E. W. Jenks; "An Illustration of Xenomenia," Dr. T. Parvin; "On the Relations of Pregnancy to General Pathology," Dr. Robert Barnes; "The Spontaneous and Artificial Destruction and Expulsion of Fibrous Tumors of the Uterus," Dr. W. H. Byford; Report of a case of Abdominal Pregnancy treated by Laparotomy," Dr. T. G. Thomas; "Pneumatic Self-replacement in Dislocations of Gravid and non-Gravid Uterus," Dr. H. F. Campbell; "Hydrate of Chloral in Obstetric Practice," Dr. W. L. Richardson; "Labor Complicated with Uterine Fibroids and Placenta Previd," Dr. J. R. Chadwick; "Latent Gonorrhœa with regard to its Influence on Fertility in Women," Dr. E. Nœggerrath; "On Death from Urinemia in certain cases of malignant Diseases of the Uterus," Dr. A. Wiltshire; "Clinical Memoir on some of the genital lesions of Childbirth," Dr. Wm. Goodell; "Hermaphroditism," Dr. L. Tait; Cases of Cystic Tumor of the Abdomen and Pelvis," Dr. G. H. Bixby; a case of solid Uterus Bipartitis—both Ovaries removed for the relief of Epileptic seizures ascribed to Ovarian irritation," Dr. E. R. Peaslee; "Origin and History of Calculi found in the Bladder after the cure of Vesico-Vaginal Fistula by Operation," Dr. H. F. Campbell; "Rare Forms of umbilical Hernia in the Fœtus," Dr. J. R. Chadwick.

The volume is closed with an obituary notice of Dr. Gustav Simon.

We have not space to give in detail the scope of the various papers. Those familiar with the writings of the various gentlemen as published in the medical journals only need be informed that the articles in this book are very like others already before the profession. Some are good and others are poor. That they contained little which is new is due to the fact that all new things had been reiterated hundreds of times before. As a collection of essays the volume will be a valuable addition to any medical library.

REPORT OF THE BOARD OF HEALTH OF THE CITY AND PORT OF PHILADELPHIA FOR 1875. Paper; pages, 351.

This report is issued in the best style and is illustrated by wood cuts, tables and diagrams. Every page gives evidence of the care and industry exercised in its preparation. The authors clearly show that their chief aim was to "tell the truth, the whole truth and nothing but the truth." Those interested in the study of city hygiene will here find a valuable fund of knowledge.

The annual death rate was 22.27 per one thousand inhabitants. The board strongly recommend the removal from the city of all offensive trades and manufactures, as fat melting establishments, slaughter houses, etc. Further, at their removal all such nuisances should be separated by a defined boundary from populated districts. In short. a tract of land should be set apart for all establishments that cause offensive effluvia. The expeuse of the removal in all cases should be met by the city. The coroner returns 111 deaths as caused by heart disease, 85 by convulsions, and 66 by drowning. The entire number of inquests made was 1,074.

In births the coldest months are the most prolific and the warmest least so. Climate influences births, as might be anticipated by physiological considerations. The marriage tables show that there were fewer marriages in proportion to the population in 1875 than in any year since 1861. This decrease began during the panic of 1873, and has been increasing each year since. The same tables show that "the chances of females being married before the age of twenty years are as *one* to *five* of all the probabilities that they will ever marry. At the age of twenty years about *one-fifth* of all their chances are gone. At twenty-five about *two-thirds*, and at thirty nearly *six-sevenths* of all their probabilities are lost. After passing the age of forty a female has a very slight chance of ever being married, *twenty-nine-thirtieths* of all her chances being lost.

At the age of twenty the chances of males being married are scarcely lessened at all. At twenty-five there are about *three-fifths* of their chances remaining. At thirty *seven-tenths* of all their chances are gone. From this period on they rapidly diminish, but in a smaller proportion than females."

Particular attention is directed to the water supply of Philadelphia. Its present defects are pointed out and methods suggested for their removal,

MYELITIS OF THE ANTERIOR HORNS, OR SPINAL PARALYSIS OF THE ADULT AND CHILD. By E. C. Seguin, M.D. Cloth, pages, 120. 1877. New York: G. P. Putnam's Sons.

This work is founded upon forty-five well observed cases. Evidently the author has exhausted his own case books and the published records of other observers. He opens with a recital of the historical facts relating to this disease. Then after giving the cases in detail he proceeds to analyze and combine them. The pathology, diagnosis, prognosis and treatment are next fully discussed. He shows that "this disease is common to all ages, and that it is characterized by atrophic paralysis of one or more limbs, rarely of other parts, loss of faradic reaction and diminution or loss of galvanic reaction in the paralyzed muscles, by remarkable freedom from anæsthesia and retention of urine and absence of bed sores, and by temporary numbness and referred pains.

The *course* of the disease in children is nearly always acute; in about fifty per cent. of cases acute and febrile. In adults it runs an acute febrile, an acute non-febrile or a chronic course. The last named type of the disease is rare, excessively so in children. In adults and children the *lesion* of the spinal cord consists in myelitis of the anterior horns with atrophy (through granular degeneration) of the ganglion cells of this part. The motor cells constituting the trophic centre of nerve trunks are destroyed, and the resulting atrophic paralysis greatly resembles that of peripheral paralysis.

The *causes* of myelitis of the anterior horns are: predisposing, age and sex. In childhood the two sexes are about equally liable to the disease, and are more frequently attacked when from one to four years of age. Adult males are much more often affected than women; and the best years of life, twenty to thirty five years, are those during which the disease occurs. Exciting causes—The only one definitely known is the impression of cold.

The *treatment* consists in the heroic use of antiphlogistic means, such as counter-irritation to the spinal region, the internal administration of ergot, belladonna, iodide of potassium during the acute and sub-acute stages of the disease, and of the judicious use of galvanism, faradesin, massage, douches, tonic and supporting treatment, and orthopœdic apparatus during the stage of residual atrophy.

The *prognosis* is very good as regards life, but unfavorable with respect to function of paralyzed parts; very few patients recover perfectly from myelitis of the anterior horns."

The work is worthy the most careful study of every student of spinal diseases. Its mechanical appearance is in every respect creditable to the publishers.

CIVIL MALPRACTICE. A Treatise on Surgical Jurisprudence, with Chapters on Skill in Diagnosis and Treatment, Prognosis in Fractures, and on Negligence. By Milo A. McClelland, M.D. Cloth; pages, 554. 1877. Boston: H. O. Houghton & Co.

This work is composed of reports of malpractice cases, carefully selected and detailed. It contains the materials for a treatise on civil malpractice, but it is not in any sense such a treatise. We are sorry that the author did not digest his material and give it to us in a better and more enduring form. Perhaps he may do so at a future time. The mechanical execution of the book is all that could be desired.

L. C.

ATLAS OF SKIN DISEASES. By Louis A. Duhring, M.D. Part II. 1877. Philadelphia. Price, $2.50.

This atlas is being issued quarterly, and is intended to accurately delineate the characteristic features of skin diseases in America. The specimen before us is even more satisfactory than Part I, which we noticed last August. It contains four chromo-lithographs accompanied by the appropriate letter text. The subjects thus treated are, acne rosacea, icthyosis (simplex), tinea versicolor, sycosis non parasitica. The author has been specially successful in transferring to paper the distinctive features of these particular skin affections. The accompanying text well describes the clinical history of the particular case and the exact treatment. Every general practitioner will be delighted to place this atlas in his library.

THE MORTALITY OF SURGICAL OPERATIONS IN THE UPPER LAKE STATES COMPARED WITH THAT OF OTHER REGIONS. By Edmund Andrews, A.M., M.D. Paper, pages, 123.

Dr. Andrews merits the lasting gratitude of the profession for the ability and industry exercised in the preparation of this little work. Hitherto it has been difficult to ascertain the mortality of the different operations, but with these tables before us the question of mortality respecting any particular operation is readily answered. Further, a careful compilation is made of reliable cases from the practice of reliable surgeons in the upper lake states. L. C.

EXCISION OF THE LARGER JOINTS OF THE EXTREMITIES. Prize Essay of American Medical Association. By H. Culbertson, M.D. Cloth, pages, 672.

This work is a monument of persistent well directed labor. The histories of nearly four thousand cases were collected and their careful analysis here presented. From these analyses conclusions are drawn and each reader, from the published data, can judge of their correctness Fifteen plates accompany the work, and by their aptness and accuracy enhance its value. No surgeon's library can be complete without this work.

L. C.

GENERAL INDEX TO THE NEW YORK MEDICAL JOURNAL, FROM 1865 TO JAN. 1876. By Jas. B. Hunter, M.D. Cloth; pages, 144. New York: D. Appleton & Co.

This is very carefully prepared, and will be of great service to those having access to files of this journal.

Meteorological Report of Detroit for May, 1877.

BY C. HENRI LEONARD, M. D., OBSERVER FOR STATE BOARD OF HEALTH.

BAROMETER. — Highest, 30.360; lowest, 29.552; range, 0.808; daily average, 30.001. The daily average is higher than for any preceding May.

TEMPERATURE.—Highest, 86; this was on the 18th; (It should be remembered that this is the temperature of the air some 100 feet above the pavement; add from 8 to 10 degrees for street temperature. The increase is due to the pavement rays, and the confinement of the air by building-blocks). lowest, 32; this was on the 2d; average, 57.7; range, 54. This has been about the usual mean registration in years past, and a fraction of a degree higher than the average of the Mays before. The temperature has been higher, and also lower, in preceding Mays than the maximum and minimum registration this month. Hence this has been what you might reasonably call, in this respect, a typical May.

WINDS.—Prevailing direction, south-west (10 days S. W.); greatest velocity, 20 miles per hour. Total number of miles traveled, 4,256. The day of least wind travel was the 3d; but 29 miles were made that day and night. It has been an unusually calm month. The usual wind travel is at least *one-fourth greater.* At four observations there were perfect calms.

CLOUDS.—No. of clear days, 12; cloudy, 3; rainy, 8; fair, 16. An unusually *clear* (fair) month. Our usual number of rainy days is up in the "teens." Last May we had 20 rainy days.

RAINFALL.—As a natural consequence of the excessive "fairness" of the month, the rainfall must be less than usual. The total amount of precipitation was *less* than one inch; the registration was nine-tenths of an inch. The usual monthly precipitation is in the neighborhood of five inches; hence an unusually dry month. In '72 there was a total precipitation of 5.64 inches; in '73, 3.50 inches; in '74, 1.93 inches; in '75, 5.83 inches; in 76, 5 62 inches.

MOISTURE.—The highest absolute humidity was seen at the evening observation of the 18th; there were then 7.44 grains present. This coincides with the day of highest temperature, but not with the hour of highest temperature. The temperature of the 2 P. M. observations of this day and the day following was some *ten degrees* higher than the temperature of the observation that coincided with this high humidity. The relative humidity was 81 per cent. at this observation. At four other observations the relative humidity was higher than at this one, and at seven other observations the temperature was higher than at the one giving this high absolute humidity, and hence it cannot properly be regarded as an exception to the rule that the highest absolute humidity does not necessarily correspond to the time of highest temperature.

OZONE—Was present in very small amounts this month. On the 4th and 25th it was present in the largest quantities. Discoloration to one was noticed after a 24-hour exposure of the paper on these dates.

LUNAR HALOS—Were observed on the 15th and 21st inst., though not well marked in either case.

We had a very noteworthy auroral display this month. I copy the report of Sergt. Van Heusen, of the U. S. Signal Service:

When first observed, at 8.30 P. M., the atmosphere at the time being quite hazy, the northern sky presented an appearance similar to that caused by the reflection of a bright light upon clouds of light, thin smoke. Gradually this light became more brilliant and extended to an altitude of about 45 degrees. At 8.45 P. M., a second arch of light, about two degrees in breadth, made its appearance about 20 degrees above the lower arch. At 8.50 P. M. a third arch of light was formed, of about the same breadth as the second, the centre of which was immediately at the zenith. At 9.10 P. M. slender luminous beams were observed to dart upward from the horizon, extending to a height of 60 degrees. Some of these were pale yellow in color, others were crimson, and being pointed and having a waving motion, they greatly resembled the flames of alcohol burning upon a flat surface. These beams continued to grow more and more brilliant and greater in number until 9.30 P. M., when a complete corona, or glory, was formed. At this time the spectacle was a most magnificent one. From the east to the west, from the northern horizon to a point ten degrees south of the zenith, the sky was one mass of quivering flame, in which all the colors of the rainbow seemed blended. The forms in which the rays of light arranged themselves were varied and beautiful, the most striking of which were irregular and sinuous bands and curvatures, presenting the appearance of the undulations of a ribbon, or flag, waving in the breeze. At times these bands would unite, and present the appearance of a brilliant, fringed curtain, whose folds were agitated by the wind. These folds were numerous and complex, enveloping each other and presenting an immense variety of the most graceful curves. After the formation of the corona, tremulous waves, or flashes, of light, following each other in rapid succession, rolled upward toward the zenith and traveled along the lines of the auroral arches. The southern sky was of almost inky blackness, which seemingly increasing the brilliancy of the stars, added to the grandeur and magnificence of the scene. At 9.45 P. M. the corona commenced to fade and break up, the slender beams of light seeming to be withdrawn to the horizon, leaving the three arches, as they were first observed, only much less brilliant. These broke into segments resembling illuminated clouds. At 10.10 P. M. the aurora had entirely disappeared. This aurora was generally observed throughout the entire northern portion of the United States. and its unusual splendor was the cause of much admiration and remark.

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Original Communications.

The Development of Myopia among the School Children of America.

READ BEFORE THE OHIO VALLEY MEDICAL ASSOCIATION, BY THE RETIRING PRESIDENT, REUBEN A. VANCE, GALLIPOLIS, OHIO.

There is one very important subject to which I desire to draw your attention, and in reference to which I think some immediate action is demanded on the part of all medical organizations. This relates to the development of myopia among the school children of this country—an affection which is not more ruinous in its ultimate results than it is controllable in its early stages.

It is now nearly a year since the Hon. Charles S. Smart, the State School Commissioner of Ohio, requested me to furnish him with such data in reference to the medical aspects of the school system of this state as would enable him to make such suggestions as the urgency of the matter would seem to require; and in compliance with this request I collected such hygienic data as were accessible, but an unfortunate illness prevented the preparation of my report in time to be of service to him.

The degree in which myopia is due to our present educational system is so strikingly exemplified by the statistics at my disposal that I have thought it worth while to bring the matter to your attention, and request such action as you may think necessary in the premises

In the first place, let me say, in the language of Dr. Derby, the eminent oculist, of Boston, that myopia, or near-sightedness, is by no means the harmless and innocent affection that ordinary text books on physiology have so long represented it. No idea concerning the organ of vision is more firmly grounded in the popular mind than that a near-sighted eye is a *strong* eye, the difficulty depending on an undue convexity of the crystalline lens or of the cornea, and likely to be corrected in after years by the flattening of one or the other. How utterly false this view is, every ophthalmologist well knows, yet many medical men still entertain it. The truth is by no means universally diffused through the profession, and THE FACT *that near-sightedness depends on a change in shape, an elongation of the eyeball,* ITS PROGRESS, *on an increase in that elongation,* ITS DANGERS, *on that elongation being pressed beyond the power of endurance of the tissues of which the organ of sight is composed,* should be dwelt upon in every medical society until these ideas become the property of all their members

In fact, myopia is either stationary or progressive; the stationary variety, unfortunately, being the rarest form of the disease. The popular idea of this disease is based upon the history of cases of stationary myopia in which, after the fortieth year, the degree of near-sightedness may even diminish slightly, owing to the senile flattening of the lens and contraction of the pupil, which neutralizes, to some extent, the unnatural length of the globe. It is only in exceptional cases, however, that this takes place—progressive myopia is the rule.

Progressive myopia is well described in the words of Donders, which I quote from a report recently made by Dr. Hasket Derby, of Boston, to the president of Harvard College. " When the increase in length of the eye has reached a certain point, its layers become so thin and their power of resistance so much diminished, that the stretching process can *no longer remain stationary*, especially as the pressure in the interior of the myopic eye is generally somewhat heightened. The progressive stretching and the progressive myopia go hand in hand, *and here we have a true disease of the eye. I understandingly proclaim a myopic eye to be a diseased eye.* High degrees of myopia are much less likely to remain stationary than slight degrees; even in advanced age they are liable to increase. Nearly all myopia is progressive in the young, its increase being often coupled with symptoms of irritation. This time of life is the critical one for the myopic eye: if during its continuance the myopia does not appreciably increase, it may remain stationary. If, however, it considerably advances, it will ultimately become more difficult to limit its progress. *This is, therefore, the time when special efforts must be made to guard against injurious influences.* On this point I can hardly lay sufficient stress Apprehension must be entertained with regard to the future of every case of progressive myopia. For, if it constantly progresses, distressing symptoms soon arise, interfering with the usefulness of the eye And, not infrequently, at the age of fifty or sixty, *in some cases even earlier*, vision may be irretrievably destroyed. Such an issue may be due to *retinal separation*, to *hæmorrhage*, or finally to *atrophy* (suspension of nutrition) and degeneration of the macula (the most sensitive portion of the retina)."

Modern methods of investigation enable the surgeon to determine not only the degree of divergence in shape from the normal standard of the eye, but also to estimate the acuteness of vision inherent in either retina Consequently, the extent of myopia and the acuteness of vision existing in a patient can be determined at any time. When the results of prior examinations have been recorded, the course pursued by an eye can be ascertained with the greatest ease and accuracy. Thus, the myopia and the visual power being measured and stated in simple figures, a subsequent examination will easily ascertain whether the myopia has progressed or the visual power degenerated, and expressit in the same simple manner, while the difference between the first and second sets of figures will show the extent of the increase and the amount of the degeneration. Such examinations have been made in Europe for a number of years, and recently in this country. A brief reference to their results as epitomized by Dr. Derby in his already referred to, "Report on the Percentage of Near-sight found to exist in the Class of 1880 at Harvard College," will clearly demonstrate their utility.

It is to be borne in mind that the point they illustrate is the progress of myopia, due to the modern system of education, and that the end in view is the elimination, so far as possible, of the special exciting cause or causes, when they are once ascertained.

First, then, we will take up the well known and often quoted results of Dr. Cohn's investigations. About the year 1867, Dr. Cohn, of Breslau, examined the eyes of 10,060 school children and students. The following is a summary of his results:

In the village schools there was no myopia among children who had not yet completed their first half year of work. Taking these schools as a whole, there was 1.4 per cent. of myopia.

Taking all schools together and following the scholars, at successive intervals, from the first half year to the fourteenth year of school life, the percentage of myopia was found to be the following:

First half year	0.4
Second half year, to second year	4.8
Third and fourth years	8.6
Fifth and sixth years	7.9
Seventh and eighth years	11.3
Ninth and tenth years	24.1
Eleventh and twelfth years	49.5
Thirteenth and fourteenth years	63.6

In 1871 Dr. Erismann published the results at which he arrived after examining 4,358 scholars at various educational establishments in St. Petersburg. The pupils were from eight to twenty years of age. They were arranged in five classes, the fifth being the most advanced, and the following is the percentage of myopia in each:

Preparatory class	13.6
First class	15.8
Second class	22.4
Third class	30.7
Fourth class	38.4
Fifth class	41.3

Dr. Reuss, in 1872–3–5 examined 1,050 pupils at the Gymnasia, of Vienna. They were arranged in eight classes, and the following is the percentage of myopic individuals in each:

First class	33.4
Second class	39.4
Third class	47.0
Fourth class	48.2
Fifth class	43.5
Sixth class	47.7
Seventh class	61.4
Eighth class	59.6

After one year had elapsed, Dr. Reuss found forty-one per cent. of the myopic eyes unchanged, while the difficulty had increased in forty-seven and seven-tenths per cent. In the third year twenty-eight and four-tenths per cent. only remained unchanged, while sixty-one per cent. had grown more near-sighted.

In 1874–5 Dr. Conrad examined the eyes of 3,036 school children in Kœnigsberg, and found the percentage of myopia to rise as follows:

Eighth class (the youngest)	11.1
Seventh class	15.8
Sixth class	20.5
Fifth class	21.8
Fourth class	28.44

Third class	44.39
Second class	54.59
First class	62.10

Dr. Pfluger, in 1876, published the results of his investigations in the schools of Lucerne, 1,846 pupils being examined, and found myopia present in the following percentage according to age:

Seventh	year of age	0.
Eighth	"	2.
Ninth	"	3.
Tenth	"	6.
Eleventh	"	6.5
Twelfth	"	6.
Thirteenth	"	10.
Fourteenth	"	14.5
Fifteenth	"	26.
Sixteenth	"	30.
Seventeenth	"	43.
Eighteenth	"	55.
Nineteenth	"	56.
Twentieth	"	40.
Twenty-first	"	61.5

The New York *Medical Record* for Jan. 20th, 1877, contained an article by Dr. Cornelius R. Agnew, on "Near-sightedness in the Public Schools," which had been read before the Medico-Legal Society of that city, Jan. 3d, 1877. He detailed the results at which he had arrived as the result of an analysis of observations made in New York city by Dr. W. Cheatham, in Brooklyn, by Drs. Prout and Matthewson, and in Cincinnati, by Drs. Ayres and Williams. In all, 1,479 students were examined, 630 in Cincinnati, 549 in New York, and 300 in Brooklyn. The following is the percentage of myopia:

CINCINNATI.

District school	10 per cent.
Intermediate school	14 per cent.
High school	16 per cent.

NEW YORK COLLEGE.

Introductory department	29	per cent.
Freshman class	40	"
Sophomore "	35	"
Junior "	53	"
Senior "	37	"

BROOKLYN POLYTECHNIC

Academic department	10	per cent.
Collegiate "	28	"

The distinguished author, in referring to the examinations made in the New York College, very justly alludes to the class of students in attendance there as young men of more than ordinary intelligence. Boys in the public schools of that city reach the college by merit, and as a class, they are all hard students. Several years' residence in the immediate neighborhood of that institution rendered me familiar with its workings, and enables me to explain one apparent anomaly in the statistics of myopic students attending there. I was personally acquainted with several young men who became so myopic while there that they were compelled to leave college. This fact, which must always be borne in mind as a factor that invariably reduces the percentage of myopia in senior classes in colleges, is one that operates with great severity in this particular institution, for within its walls is concluded the student life of many hard working myopics, who have been growing more and more short sighted ever since they entered the public schools, from five to eight years before.

Dr. Hasket Derby, in the valuable "Report" from which I have extracted many of the foregoing facts, says that in 1875 he commenced a series of examinations at Amherst College which he intends to keep up for some years to come, and he hopes to be able to deduce facts of practical importance from the careful study of the different phases that myopia assumes in the same individual at different periods of his career. This examination was repeated in the fall of 1876. The classes of 1879 and 1880 were required to report to him for examination, and were furnished time for that purpose. In the fall of 1875 twenty-eight per cent. of the class of 1879 were found to be myopic, and one year later [illegible] fifty per cent. of these had grown more myopic. Twenty-seven per cent. of the class of 1880 were found to be near sighted early in their Freshman year.

Through the kindness of the Faculty of Harvard College, Dr. [illegible] was enabled to examine volunteers from the class of 1880, [illegible] during January of the present year. [illegible] students presented themselves, and [illegible] twenty-nine and nine-tenths per cent. were [illegible]. Strange to say, twenty-two per [illegible] their vision normal prior to examination.

[illegible] character of these facts must be evident to [illegible]. A system of education which operates so [illegible] with healthy eyes at seven and [illegible] an organic disease of the most serious [illegible] visual power in a proportion of more [illegible] students, is not worthy of that name. [illegible] matters are not so bad as that—it is in Ger-[illegible] destruction of human eyes prevails [illegible] percentage is not quite so high—in fact, [illegible] per cent. In other words, according [illegible] our educational system only ruins [illegible] part of eyes submitted to its routine. [illegible] that could the state of the [illegible] New York City College be [illegible] common schools of that [illegible] among these students in [illegible] by Cohn. Can [illegible] great evil, or depict [illegible]

[illegible] Valley Medical Association [illegible] on this con-[illegible] attention of the [illegible] as it may deem necessary [illegible] this great and in-[illegible]

Clinical Reports.

BY H. W. LONGYEAR, M.D., RESIDENT PHYSICIAN TO HARPER HOSPITAL.

RECURRENT HYDROCELE

The following case of hydrocele of the tunica vaginalis is of interest because of its persistent recurrence after the most radical treatment by repeated injections of iodine, the use of the seton, and free incision.

Mr. W. J., aged 22 years, born in Michigan, unmarried, previous health good; patient's brother had hydrocele when two or three years of age.

The hydrocele occurred first in 1870 with no apparent cause, and attended with little pain, the tunica vaginalis of both sides being filled with the serous effusion. From this time until the patient entered Harper Hospital in the spring of 1874, the effusion was drawn with the trochar and canula, and the sacs injected with tincture of iodine a number of times, but with no permanent benefit.

The patient first entered the hospital April 5, 1874, at which time Dr. T. A. McGraw operated on the left side, by laying it freely open with the knife and packing with lint. The cavity was packed with fresh lint twice daily until it healed from the bottom by granulation, which it did in about four weeks. At this time the right side was considerably inflamed from the effects of a recent injection of iodine, so it was not interfered with. Patient returned in the fall of 1874, at which time the left side (the one operated on) was found to be well, and the tunica vaginalis of the right side distended with fluid. This was also operated on and treated the same as the left had been. This remained well for a period of about seven months, when the sac began to fill slowly and painlessly, and the patient again became an inmate of the hospital in the spring of 1876. At this time Dr. McGraw operated by making two incisions, one at each end of the sac, and passing a seton, formed of a piece of broad cotton bandage, through the openings. New setons were introduced, their size gradually lessening, every five or six days, until at the end of four weeks, the last small one was removed and the wounds allowed to close, after which the adhesions seemed to close the sac completely, and the patient was discharged.

The sac began to refill in the same manner as before in about five weeks after leaving the hospital, and continued to remain painlessly distended until May, 1877, when the patient again entered the hospital, and Dr. McGraw operated for the third time. This operation was performed in the same manner as the one immediately preceding, with the exception of a thorough painting of the surface of the tunica vaginalis with tincture of iodine before introducing the seton. The first seton was kept in two weeks, when it was removed and replaced by a large rubber tube perforated midway in its length by three small holes, and through this tube a strong solution of carbolic acid (gttxxx to ℥i) was injected once in two days. This tube was replaced by a similar tube of smaller size in about ten days, and this by a doubled silver wire a few days before his discharge from the hospital, with instructions to draw it back and forth occasionally, and allow it to remain six weeks.

SUPPOSED CASE OF MALARIAL FEVER SIMULATING VARIOLA.

This case presents an interesting illustration of the fact that there are other diseases which closely resemble variola in its early stages, and warn the physician against making a positive diagnosis of variola before the vesicle has formed.

Henry H., aged 22 years, laborer, of American birth, light complexion, rather stout build, well nourished, entered Harper Hospital as a patient Thursday evening, June 21, 1877. The case had the following history: On the preceding Monday morning he experienced a sharp chill, accompanied by vomiting, a slight diarrhœa, pain in back, loins and head, which was followed by a high fever, which the patient said had continued up to the time of his admission to the hospital. On Wednes day, the day before entering the hospital, a profuse erythematous eruption made its appearance on the chest, face and arms.

At the time of his admission to the hospital the patient's temperature was 104½° F., pulse 120, face deeply flushed, eyes slightly bloodshot, pain in back and head, tongue thickly covered with a thick coating, no diarrhœa or vomiting, mind seemed dull and inactive, and patient had to be questioned quite sharply to elicit answers. The erythematous eruption now covered the whole trunk, face, arms, and upper part of the thighs. No papules could be discovered, excepting a few on the face, and these the patient said he often had during health.

Dr. Inglis saw the patient, and, awaiting further developments, prescribed large doses of quinine to reduce the temperature, the first of which was given at 6 P. M., when twenty grains of sulphate of cinchonidia in solution was administered. At 12, midnight, the temperature had fallen to 102½ degrees. Twelve grains of sulphate of quinine in solution were now given. The temperature and other febrile symptoms continued to abate steadily until 9 A. M. Friday, when the patient's temperature was normal, pulse 85, and the erythema greatly diminished. At this time there was quite a number of spots on the abdomen that resembled the roseola spots of typhoid fever. The cinchonidia was continued in doses of seven grains three times a day until Saturday afternoon, when the eruption had entirely disappeared, and the patient said he felt quite well, although a little weak, and his father took him home.

In this case there were no febrile symptoms whatever after the temperature had fallen to 98½° on Friday morning.

Neuralgic Dysmenorrhœa.

READ BEFORE THE ST. JOSEPH VALLEY DISTRICT MEDICAL SOCIETY,
BY R. S. HAGGERTY.

Menstruation is variously described as an exudation, oozing or extravasation of blood from the mucous membrane of the uterus, or from the ovaries, tubal and uterine mucous membranes, which are thus relieved from an intensely congested condition, caused by a maturing ovum. The turgid, or erected, condition of the parts causes the fimbriated extremity of the tube to clasp the ovary and press the ovum through its proper channel. Recent investigations have thrown doubt on the presumed dependence of the menstrual flux on ovulation, and have rendered it highly probable that the flow is "the terminal change only of a cycle of changes which begin at the cessation of one menstrual flow, passing through the developmental changes of the mucous membrane of the uterus, and ending with the cessation of the flow next following." That is not a congestion, nor a species of erection, "but a molecular disintegration of the mucous membrane of the body of the uterus, followed by hæmorrhage," being, at such period, either a desquamation of the entire mucous membrane or a destruction by fatty degeneration of the surface layer of the membrane, ovulation, if present, being incidental, and not the cause of it. Another cause of hæmorrhage is muscular contraction of the uterus, which exists in normal menstruation almost certainly, and without question in dysmenorrhœa.

While the connection of ovulation with menstruation is a subject of interest and importance, we will not discuss it here, as the form of dysmenorrhœa we shall consider does not demand it.

Normal menstruation is manifested frequently by the discharge alone, although uneasiness, heaviness about the loins, and slight pains in the back and pelvis are not considered pathological, because many healthy women have such symptoms from the muscular contractions necessary to expel the blood and detritus. But where pain exists of such a character as to call for relief, it is styled dysmenorrhœa, the term referring to the pain and not to the cause of it.

Prior to 1826 it was commonly reckoned to be the local expression of a constitutional difficulty. In that year Mackintosh treated a case of amenorrhœa by dilating the neck, and afterwards fifteen cases of dysmenorrhœa successfully in the same way, using "common metallic bougies from the size of an ordinary probe to No. 8 or 10." There were cases of stenosis, the dysmenorrhœa being mechanical. Since that time there has been a tendency to attribute the disease to local causes, until now but few cases are assigned to general causes, and they are of doubtful acceptance, some vice of the blood or of the nerves being the scapegoat called upon to bear off the sins producing it. The local causes are cancerous, fibroid or other tumors narrowing the channel through which the flow passes; versions or flexions of the uterus which change the axis of the outlet; stenosis from previous inflammation or existing inflammation of the cavity of the uterus, either general or circumscribed.

Not caring to occupy time in discussing the different forms of dysmenorrhœa where agreement is had with the text books, my remarks will be limited to what is commonly called neuralgic dysmenorrhœa, generally supposed to be a constitutional disease manifested by an excruciating pain at the menstrual flow. A young woman with this disease bears no marks of its character in the intervals of suffering, being usually healthy and vigorous, enjoying life without ache or ailment. This continues for years, until the monthly repeated agony finally induces an irritable condition of the nervous system which results in general prostration. West describes the paroxysm thus: "The pain in such cases precedes menstruation for a day or two, generally reaches its greatest intensity in the first twenty-four or thirty-six hours of the catamenial flow, being so intense that the patient rolls on the floor in agony, and then by degrees subsides, though it does not cease entirely till the period is over." Simpson says: "Pains which have existed in other organs and parts of the body disappear only to be concentrated in the womb."

The pathological condition is probably an irritable ulcer of the mucous membrane of the uterus just within the internal os, which causes pain only when a contraction of the muscular tissue takes place for the expulsion of the menstrual discharge. Ss long as this contraction lasts the pain will continue, and be proportioned to the amount of contraction and to the extent of the ulcer. The origin of the lesion may be exposure to cold, getting the feet wet, or any of the numerous causes of so-called congestive dysmenorrhœa, which mechanically impede the flow and cause clots to form in the cavity of the uterus which can only be expelled by strong muscular efforts, and which tear or otherwise injure the delicate mucous membrane at or near the internal os; this, not healing before the next monthly period, is again subjected to muscular contractions, causing the anguish characteristic of the disease.

Without searching for an analogue to this affection I have been so constantly reminded of anal fissure as to be convinced that it is very much like it.

Pain is almost the only symptom announcing the presence of both. The peculiar agonizing character of the pain is alike. The lesion is but trifling in both; the dysmenorrhœa frequently sought for in vain; in anal fissure only found after diligent search.

Neither disease tends to get well spontaneously; "neither time, nor change of air, nor general treatment, however skillfully applied, seems capable of curing" either of them. "Patients become confirmed invalids" from each of them, and of some the nervous sensitive character. And to complete the analogy the cure is effected in a manner almost identical. The cure of anal fissure is effected by cutting through the ulcerated surface into the sub-mucous membrane, or by rupturing the sphincter muscle, and the treatment of neuralgic dysmenorrhœa must be similar.

Thomas gives a list of numerous remedies used as constitutional treatment, but evidently has little faith in their efficacy, and concludes by saying: "The occasional passage to the fundus of the uterus of a uterine sound or silver catheter, the situation in the uterus of the galvanic pessary, and the use of tents of sponge or sea tangle will often prove serviceable." Byford says: "I am sure that although I have tried such remedies as were suggested to me by reading and observation in neuralgic diseases, yet I have invariably failed with every kind of treatment besides that of local applications to the diseased mucous membranes." Although I have, in every division of the subject, enumerated neuralgia as a variety of dysmenorrhœa out of veneration for authority, I believe that the nervous is the unimportant element instead of the essential one.

The cure of anal fissure being so certainly accomplished by the means suggested induced me to pursue a like treatment in the disease under consideration, which is superficial dicision of the internal os, such as is practiced by Peaslee and others for contraction of the neck. Placing the woman in Sims' position, introducing the speculum, the neck of the uterus is seized with a tenaculum, and a uterotome or tenotomy knife is introduced along the cervical canal within the cavity of the uterus; a nick is then made on one side about one-eighth of an inch in depth, the instrument is withdrawn and introduced again so as to make a like incision on the opposite side. If there is stenosis of the canal of the cervix, the cut, of about the same depth as at the internal os, is continued throughout. If there is no narrowing of the cervical canal, the incision is confined to the internal os. A sponge tent is now introduced, or what is better, a steel spring. If the tent is used, it should be removed in six or eight hours; if the spring, it may remain for from one to four or more days. If the case is one of simple ulceration or fissure, the cure will be completed without medication. If stenosis exists, or want of parallelism between the axis of the body and neck, the dilation will have to be removed. While the sponge tent may be innocuous, it is a fruitful cause of cellulitis, and should never be used where force is required to introduce it. Cellulitis may also follow a deep incision, but is not likely to result from the superficial one advised.

Original Translations.

Translated from the French and German for the "Detroit Medical Journal."

BY J. HENRY CARSTENS, M. D.

1. *Experiments on the Local Action of so-called Astringents, by Dr. Hugo Rosenstern.* (*Rossbach's Pharm. unt.* 1876 *Schmidt's Jahrl.*)

R. came to other conclusions when making experiments on the mesenteries of frogs than those heretofore entertained on the above subject. He watched the action on the mesentery of the astringents applied, and noticed the following:

Nitrate of Silver produced a marked contraction of the arteries and veins, lessening of the blood current in them and often even complete stoppage of the current. The maximal contraction took place in 16–18–50 seconds (according to the concentration of the solution). Tannic, gallic, or pyrogallic acid, however, produce no contraction whatever, but a dilation. The dilatation is not due to reflex action, as it takes place after the extirpation of the vertebral column, the destruction of the cord and brain. Acetate of lead and sesquichloride of iron, however, proved to be good astringents, although weaker than nitrate of silver.—*Vienna Med-Chir. Rundschau.*

2. *Pathological Anatomy of Malarial Fever, by A. Kelsch, (Archiv. f. Physiol. Centralbl.)*

The observations made in the military hospital at Phillipsville during an epidemic of malarial fever, affecting 1,181 persons, gave the following results:

1. Diminution of blood globules (red and white) one-fifth to one-tenth of the normal number. This diminution is specially rapid at the beginning of the first attack of fever; continues, although less rapidly, until the intermission, when slowly an increase of globules takes place until recovery.

2. A well marked increase in the red globules of the blood.

3. Melanæmia, constantly in pernicious fevers, and of diagnostic importance, as the pigment cells are found also in the peripheric vessels. Generally, in malarial toxæmia, although not always, the pigment can be found accumulated in the liver and the spleen.

The pigment is united to cells, and is only found free in the venous blood of the liver and the spleen. The author does not consider the spleen to be the organ that produces the pigment, but thinks the latter circulates in a soluble condition in the blood. and is precipitated in the white blood corpuscles. The large quantity of pigment in the venous blood of the liver and spleen he explains by the slower circulation in those parts.

Finally, part of the pigment is excreted and part deposited in the tissues of the spleen and liver.—*Vienna Med.-Chirurg. Rundschau.*.

3. *On the Employment of Mineral Water during Pregnancy, by M. C. Dr. Gabriel Nicolas.*

The different morbid conditions found during pregnancy appear to offer special indications for the employment of mineral waters. Although the treatment is not heroic, still it is useful and can be constantly employed.

The author's conclusions are:

1. Pregnancy offers no contra-indication to the use of mineral water; it even indicates the use of such measure, and is to be recommended.

2. Mineral waters render great service in certain diseases of pregnancy: Chloro-anæmia, albuminuria, anasarca, constipation and digestive troubles.

3. Pregnancy is not a contra-indication to the employment of hydro-therapeutic treatment.

4. The cold douches are found to be useful in certain cases of rebellious chlorea-anæmia, indigestive trouble, and certain nervous conditions during the state of pregnancy.—*Annales de Gynæcologie.*

Sulphide of Carbon in Chronic Ulceration of the Neck of Uterus, by M. Guillaumet.

The author has used the above remedy in many cases of chronic ulceration of the neck of the womb with great advantage. Unluckily the liquid possesses a very disagreeable odor, but the author thinks this not a sufficient reason to discard its use. The author mentions many ways to disguise the odor. One of the best is essence of bitter almonds, or oil of mirbane, or the following mixture:

℞ Sulphide of carbon........................10 grm.
Essence of peppermint......................15 drops.

Mix.

Iodine is very soluble in sulphide of carbon, and diminishes its odor considerably, and increases the usefulness of the liquid by its stimulating property. He uses the following with great success:

℞	Sulphide of carbon	16 grm.
	Tincture of iodine	1 grm.
	Ess. of peppermint	4 drops.

Mix.

Apply the solution with lint or cotton batting to the ulceration, and then cover immediately with finely pulverized nitrate of bismuth. Apply lint to act as tampon, which can be left in place twelve hours, when emollient injections are used. In scrofulous ulceration, chancre, mucous patches, erosions of the genito-anal region, etc., are cured in a few days.—*Annales de Gynæcologie.*

Reports of Societies.

Proceedings of the Michigan State Board of Health, at the Meeting held in Lansing, July 10, 1877.

The regular quarterly meeting of the state board of health was held at Lansing on July 10. The members present were, President, Dr. R. C. Kedzie, Agricultural College; Dr. H. O. Hitchcock, Kalamazoo; Hon. Leroy Parker, Flint; Rev. D. C. Jacokes, Pontiac; and Dr. Henry B. Baker, Secretary.

POISONING BY CHEESE.

Dr. Kedzie made a short report on the chemical examination of a specimen of cheese believed to have caused sickness in several families. He examined it for all the mineral poisons but found none. He concluded that the poison must be organic in its nature, and that it might come from one of three causes. 1st, diseased milk; 2d, chemical decomposition of the cheese after it was made; and 3d, bad rennet. This poisoning by cheese being so common, he was authorized to visit the various cheese factories and further investigate the subject.

ILLUMINATING OILS.

Dr. Kedzie made a report on illuminating oils, in which he stated that the legislature had maintained the standard flash test of 140° F., and had provided a chill test for paraffine, which will require an improved quality of oil.

COMMITTEES REORGANIZED.

This being the first meeting since the two new members were appointed, the standing committees were reorganized as follows:

Epidemic, endemic, and contagious diseases—Dr. Hitchcock.

Sewerage and drainage—Dr. Lyster.

Food, drinks, and water supply—Dr. Kedzie.

Buildings, public and private, including ventilation, heating, etc.—Rev. D. C. Jacokes.

Climate, general and by season of year, and as related to age of inhabitants—Dr. Lyster.

Disposal of excreta and decomposing organic matter—Dr. Hitchcock.

Poisons, explosives, chemicals, accidents, and special sources of danger to life and health—Dr. Kedzie.

Occupations and recreations—Rev. C. H. Brigham.

Education, the relation of schools to health, etc.—Rev. D. C. Jacokes.

Geology, topography, influence of vegetation on health, etc. —Rev. C. H. Brigham.

Death rate, as influenced by age, climate, and social condition—Dr. Baker.

Legislation in the interests of public health—LeRoy Parker.

Finances of the board—Leroy Parker.

Mental Hygiene —Dr. Hitchcock.

Notwithstanding the assignment of certain work to standing committees, it was voted that each member should present any facts or considerations bearing upon any subject relating to public health.

A new by-law was adopted that all papers for the annual report must be in the hands of the secretary on or before the second Tuesday in October of each year.

DOCUMENTS DISTRIBUTED.

Secretary Baker read a report concerning work done in his office during the last quarter. It mentioned the distribution of 10,094 copies of a pamphlet on the restriction and prevention of scarlet fever. These have been distributed to a little less than 10,000 persons in various parts of the state. This report also mentioned a circular embodying a copy of the law and a blank form of a return which had been sent to the president of each township board of health, and that out of 1,021 townships 653 had sent returns. These returns have been compiled and show that 342 of the

HEALTH OFFICERS REPORTED

are physicians, 202 are supervisors, 7 are physicians and supervisors, 90 are other persons, 65 did not state whether the health officer was or was not a physician, and 35 did not state whether or not he was a supervisor. A circular had been printed and sent to these newly appointed health officers pointing out some of their duties and transmitting sample blanks. Copies of the circular had also been sent to the health officers of cities and villages. A circular asking 66 questions relative to scarlet fever had been sent to the regular correspondents of the board, and 25 have replied.

METEOROLOGY AND DISEASES.

Up to July 1, 39 correspondents have replied to the circular relative to prevailing diseases in 1876. Weekly reports of diseases in different localities are received to the number of about 60 each week. Meteorological registers are received each month from 14 observers in different parts of the state.

SECRETARY'S WORK.

The amount of work accomplished by the board, and that transacted in the secretary's office seemed to be a surprise to the new members of the board, and Rev. Mr. Jacokes urged the importance of placing some account of it before the people. The secretary was directed to prepare a statement, to be embodied in the annual report, showing the nature and amount of work in the office during the year.

Dr. Lyster

SENT A REPORT,

which was read, giving an account of the work of the last meeting of the American medical association so far as it related to public health. He also sent a communication in relation to the small-pox in Detroit. The total number of cases reported for the year ending June 30 was 278, and the number of deaths 113. He pointed out the fact that this preventable disease had been allowed to prevail in Detroit for a full year, but at the present time the authorities are taking active measures to prevent the spread of this loathsome disease. He urged the adoption of

A RESOLUTION FOR VACCINATION

throughout the state. The board adopted the following:

WHEREAS, by means of vaccination and re-vaccination the people may secure complete immunity from small-pox,

Resolved, that all local boards of health be advised and requested to direct their health physicians to offer every year vaccination with bovine vaccine virus to every child not previously vaccinated and to all other persons not vaccinated within five years, without cost to the vaccinated, but at the general expense of the locality, as provided for townships in section 1736, compiled laws 1871.

WORK LAID OUT.

The state oil inspector was requested to prepare for publication in the annual report a statement of the oil inspection in Michigan during the past year.

The secretary was directed to have the document relating to the treatment of the drowned reprinted, and to secure 6,000 copies for gratuitous distribution.

Dr. John S. Calkins, a regular correspondent of the board, was requested to investigate the outbreak of diphtheria at Rochester.

The secretary presented a communication from Rev. C. Mendenhall, of Lexington, on the evil effects of tobacco on the human system.

A resolution of regret and sympathy was adopted in reference to the severe illness of Rev. C. H. Brigham; and also a resolution of respect to the memory of the late Dr. Zenas E. Bliss, of Grand Rapids, a former member of the board.

Mr. Parker was asked to attend the meeting of the American social science association which meets at Saratoga, Sept. 4; and Dr. Hitchcock was asked to attend the annual meeting of the American association for the cure of inebriates, which meets in Chicago, and report anything of interest or value on the subject of public health.

A RESOLUTION OF THANKS.

to Dr. George E. Ranney, of this city, was adopted for his efforts in rendering accessible to the physicians of this state a reliable article of bovine vaccine virus. He was requested to assume a permanent agency for the distribution of virus propagated by Dr. Griffin, of Fond du Lac, Wisconsin, or by some other reliable person.

Union Medical Society of Wayne, Washtenaw and Oakland Counties.

HOLLY, May 31, 1877.

The Society met at Holly, and was called to order at 10 o'clock, A. M. President, Dr. Robert Johnston, in the chair.

Minutes of the preceding meeting were read and approved.

Dr. Hall proposed the name of Dr. Wm. Caldwell, Byron, for membership. On motion Dr. Caldwell was elected member of the society.

On motion of Dr. Wade, the society elected Dr. D. Maclean, of Ann Arbor, an honorary member.

Dr. Johnston presented a case to the society. As committee to examine the case was appointed Drs. Wade, Maclean, Tock and Hagadorn. The case as presented showed large external fistulous openings around the left mamma, communicating with the lung and bronchial tubes beneath. This was shown by noticing that air escaped through these external openings during the act of coughing; also by noticing that a quantity of the solution that had been made use of from time to time, by injecting it into these external openings, passed up through the bronchial tubes and out by the mouth of the patient.

After examining the case, Dr. Maclean reported in behalf of the committee, describing very fully what might have been the cause of the existing trouble, viz., mammary abscess; abscess beneath the breast or in the pleura. He was suspicious that it might be due to syphilis, although they could not get any history to that effect. Prognosis: If due to syphilis, very good; if not, very bad. Treatment: Locally, injections of solution of carbolic acid; internally, antisyphilitics.

Dr. Wade spoke of solutions of chloral and salicylic acid for local applications, but thought the latter not as good as the two former ones on account of it not so readily permeating the tissues.

Adjourned, to meet again at half-past one P. M.

AFTERNOON SESSION.

Met according to adjournment.

Dr. Hall presented a case to the society the prominent symptoms of which were the formation of gas in the alimentary canal and eructation of the same. Some pain and induration over the region of the pancreas. As committee to examine the case the president appointed Drs. Holly, Fletcher and Morrison. Reported scirrhus. There was considerable diversity of opinion on this case.

Dr. Campbell, of Ovid, read a paper upon carcinoma. He took up at considerable length the pathology and different modes of treating the disease. He recommended the early adoption of active measures.

This essay and the case preceding it brought out a varied and an interesting discussion in regard to the symptoms of cancer, particularly that of pain. Several of the practitioners present had seen cancers in different parts of the body with scarcely any pain during the whole course of the disease.

Dr. Hall wished to know what he should tell the patient he had presented in regard to the prognosis of the society. Many of the members spoke at length in regard to the propriety of giving the prognosis in any case, acute or chronic. Some thought it best to tell the patient his asolute condition, that he might have a chance to make any preparation for the future he thought proper. Others regarded the sustaining influence of hope a great remedy, and therefore were in the habit of encouraging their patients so as to make use of it.

Dr. Fletcher exhibited two specimens of tape worm, for the expulsion of which he gave ℥ij of pulv. cucurbita pepo, after letting the patient fast for twenty-four hours.

Dr. Johnston gave a brief history of the present condition of a Mr. P., the patient he brought before the society three months previous, at Northville, having epithelioma of the left cheek, after which the society recommended Dr. Johnston to operate on said case by means of the actual cautery.

Dr. Wade thought it advisable next to devote a short time to the consideration of scarlet fever, especially to the treatment, as the disease was then prevalent in different parts of the counties. The treatment that had been found most generally successful by the practitioners present, was: Internally, carb. ammonia, citrate of iron, and quinine; as a gargle, sol. of chlorate of potash, iron and water. Dr. Wade spoke of salicylic acid and sulphocarbolates as disinfectants in scarlatina—hyposulphites to be used as prophylactics.

As delegates to attend the American Medical Association at Chicago, June 5th, 1877, the society elected Drs. D. W. C. Wade, Holly, Thomas Morrison, Wayne, Oliver B. Campbell, Ovid, and Nathan C. Hall, Davisburg. The president and secretary were authorized to name the next place of meeting. As essayists for the next meeting were appointed Drs. Morrison and Caldwell.

E. A. CHAPMAN, M.D.,
Secretary.

St. Joseph Valley District Medical Society.

The fourth annual meeting of the St. Joseph Valley District Medical Society convened at South Bend, June 12, 1877, at 10 o'clock, A. M.

Present—President L. J. Haggerty in the chair; Landon C. Rose, Geo. L. Andrew, J. C. Stevenson, Laporte; L. Humphreys, L. J. Ham, Daniel Dayton, Jno. Cassidy, G. V. Voorhees, L. W. McAllister, O. P Barbour, Mrs. S. F. Stockwell, J. A. Kettring, South Bend; O. B. Harrington, C. S. Pixley, Elkhart; J. S. Dodge, Bristol; J. R. Brown, Sumptious Prairie; S. Laning, North Liberty; B. R. O'Conner, J. B. Greene, Mishawaka; Robert Patterson, Edwardsburg, Mich.; Wm. A. Neal, Dayton, Mich.

Minutes of last meeting read, corrected and approved. On motion press reporters were excluded and the secretary authorized to furnish report of proceedings to the local press.

The committee on admission and ethics reported recommending for membership F. L Miles, M.D., of Elkhart. After discussion the report was referred back to the committee.

On motion the society adjourned till 1.30 P. M.

AFTERNOON SESSION.

The society convened pursuant to adjournment. The president then read, in place of an address, a paper on "Neuralgic Dysmenorrhœa," for which he received a vote of thanks and a request for a copy for publication. (See present number of JOURNAL.)

Dr. Geo. L. Andrew, of Laporte, according to appointment, read on interesting paper upon "Rheumatism."

Dr. L. J. Ham made a few remarks upon the topic assigned him, and asked to be continued. Request granted.

Dr. L. Humphreys read a volunteer paper on "Water as an Antipyretic Agent," and related some astonishing recoveries that seemed attributable to its use.

Delegates to American Medical Association reported in regard to their attendance upon said body.

The committee on admission and ethics reported sustaining their former report in regard to the application for membership of Dr. F. L. Miles. Report accepted, and Dr. Miles was elected a member of the society.

Dr. Cassidy moved: To facilitate the transaction of business the treasurer shall report to the secretary all members in arrears for society dues more than two years, together with the names of those who for proper cause may have forfeited membership, and they shall be dropped from the roll. Carried.

The treasurer reported showing a balance in his hands of fifty-two dollars and fifty cents ($52.50).

The society then proceeded to the election of officers for the ensuing year with the following result:

For President—Landon C. Rose, Laporte.

Vice Presidents—J. S. Dodge, Elkhart Co., Ind.; L. H. Dunning, Berrien Co., Mich.; W. W. Butterworth, St. Joseph Co., Ind.; D. Tompkins, Cass Co., Mich.; J. C. Stephenson, Laporte Co., Ind.

Secretary—G. V. Voorhees, South Bend.

Treasurer—Robert Patterson, Edwardsburg, Mich.

The newly elected president was then conducted to the chair, and after making a few appropriate remarks, announced the committees, viz.:

Admission and Ethics—S. Laning, Geo. L. Andrew, C. S. Frink, Robert Patterson,. Wm. A. Neal.

Executive Committee—J. R. Brown, Thos. Fravel, C. S. Pixley, D. Tompkins, W. J. Bonine.

On motion society adjourned to meet at South bend on the second Tuesday in January, 1878.

G. V. VOORHEES, M.D.,
Secretary.

Correspondence.

EDITORS DETROIT MEDICAL JOURNAL.—A recent *post mortem* examination was held in Eaton county, Michigan, nearly eleven days after death and nine after interment, for the purpose of ascertaining whether an injury of any kind had been inflicted upon the internal surface of the uterus with an instrument which was claimed to have been used by the attending physician. In view of the fact that the liberty of an old and experienced physician depended, in a measure, upon the skill and care with which that examination was made, it would seem that surgeons subpœnaed by the state, should have exercised a reasonable degree of these qualities in performing this important duty, and more especially as it was entirely *ex parte*, no representative of the accused being present.

I will submit the mode by which this examination was made as developed by the evidence of the examining surgeons, and then leave the readers of your valuable journal to draw their own inferences. The patient died on the 20th day of April, was disinterred on the 30th, and *post mortem* held on that day. The uterus, together with the vagina and external organs were removed from the pelvis and laid upon a temporary table, when one of the operators proceeded to invert the organs by pushing a four inch fundus through a two and a half inch neck (the patient had given birth to a five month fœtus) down through the vagina and labia, thus completely inverting the generative organs.

Having completed the inversion, inspection revealed the fact of an excoriation of the mucous or deciduous membrane to the extent of an inch and a half latterly by two inches longitudinally, reaching nearly down to the dilated internal os and extending upwards towards the fundus. This was no deeper than the mucous membrane, yet a very slight laceration was described, not deep, but like the scratch of a pin on a hard substance. The point to determine is, how came that excoriation there? The surgeon that performed the inverting said it could not have been done by turning, for he did the job with care, yet he testifies the lining of the uterus was soft, as it must have been, nearly eleven days after death. The surgeon that did not do the turning was of opinion that it might have been done by the operation. The internal surface of the uterus was not cleansed by washing, though it had expelled a five month fœtus three hours before death. I wish more particularly to call attention to the unheard of procedure of inverting a uterus at this late period after death for the purpose for which this examination was instituted. Query: Were the operators anxious to find excoriations and lacerations if not existing by superinduction, thus furthering the ends of injustice instead of justice, or did they have no idea of *post mortem* change?

W. C. ISHERWOOD, M.D.

Abstracts From Exchanges.

Practice of Medicine.

APHASIA, RIGHT HEMIPLEGIA, &C., IN WOMEN.—*(L'Union Medicale*, June 5, 1877.)—Dr. P. Duroziez, in a communication read before the Societie de Medicine, of Paris, calls attention to a concomitant affection of the heart existing in female patients presenting the above symptoms. The heart trouble, he says, is a pure mitral stenosis, and he defines the latter as one which is unaccompanied by mitral or tricuspid regurgitation, nor by any aortic lesion. After giving the details of a large number of cases, he comes to the conclusion that an examination of the heart in female patients under fifty years of age, affected with right hemiplegia and aphasia, will almost certainly disclose a pure mitral stenosis, while among males the same general rule is not at all tenable.

THE FLUID OF PERITONEAL EFFUSIONS.—(*Medical and Surgical Reporter*, March 3, 1877.)—M. Mehn, of Paris, states that: 1. In general, the prognosis is worse in cases in which the fluid contains little, than in those in which it contains much, solid. 2. The liquid of ovarian cysts contains a large quantity of solid matter. 3. Ascitic effusions from solid tumors pressing on the portal vein contain a larger quantity than those which result from disease or general dropsy. 4. Almost all liquids due to cancerous tumors have an icteric tint and contain bile, and this the author noticed also in cases of scirrhus of the liver. 5. He believes that in many, though not in all, cases, the chemical analysis of the liquid gives evidence of its origin in an ovarian cyst, or in the peritoneal cavity.

THE SETON IN PARALYSIS AND EPILEPSY.—Dr. Thos. J. Griffiths, Surgeon U. S., Nova Scotia, details in March number of *American Practitioner* his experience in the treatment of paralysis and epilepsy by means of the seton. Since 1870 he has treated, in the Marine Hospital at Louisville, Ky., eighteen cases of paralysis and five of epilepsy, in only one of which cases did the seton fail to give relief. Of the epileptics, two recovered, two were improved, and one was not benefited. Of the paralytic one died, six improved, ten recovered, and one is still under treatment.

In private practice eight cases of hemiplegia were treated with the result of six recoveries, one great improvement, and one in which, after slight improvement, softening of the brain followed. He introduces a large seton of fifteen to twenty strands of silk or flax thread and allowed it to remain for months, removing it only at the permanent improvement or recovery of patient.

TASTELESS TINCTURE OF CHLORIDE OF IRON.—The following formula is given in July number of *New Remedies* for a tasteless tincture of the chloride of iron :

℞ Solution of Chloride of Iron, U. S. Ph.	1 oz.
Citric Acid	544 grs.
Sodium Carbonate	1,000 grs. or qs
Water, distilled	1 oz.
Alcohol	q. s.

Dissolve the citric acid in the distilled water, and heat to the boiling point, gradually add the sodium carbonate until the acid is saturated. Mix this with the iron solution, which will now assume a beautiful green color, and make up the measure to 4 oz. with alcohol.

TREATMENT OF NEUROSIS OF THE HEAD.—(*Prof. Bitot, Gazette Medical de Paris*, Nov. 1876. *St. Louis Medical and Surgical Journal*, Jan. 1877.)—In a paper read before the Academy of Medicine, of Paris, the Prof. called attention to the efficacy of light cauterizations of the pharyngeal mucous membrane in the treatment of certain neuroses of head with coincident amnesia, and to the probable rule of the superior cervical ganglion in these cases. His conclusions are as follows :

1. The head is the seat of certain nervous troubles, the precise location of which is not yet settled.

2. The cranial portion of the great sympathetic must have some influence in the production of these disturbances.

3. It is rational, in that case, to assume that the superior cervical ganglion, which constitutes the principal centre of the sympathetic system in the head, is the point of origin of the nervous disturbance.

4. The anatomico-physiological importance of this gang-

lion, which is veritably the brain of the vegetative life of the head, must be borne in mind by the observer whenever a neurosis of this region comes into question.

5. The ganglion with the pharyngeal mucous membrane makes the latter the point of election for the application of certain irritants that will act on the ganglion and its most distant branches.

6. The painting of this membrane with the tincture of iodine has furnished remarkable results when the disturbances were essentially nervous, while it had proved useless in the disturbance consecutive to apoplexy.

7. In many cases complicated with amnesia, the memory has been regained under this treatment.

SENILITY FOLLOWING INEBRIETY.—(*Hartford Quarterly Journal of Inebriety.*)—Some cases of inebriety are marked by general and positive indications of premature senility, manifested in degenerations, such as indurations, fatty degeneration, calcification and softening.

The hair turns white prematurely, and the vertebral column begins to curve, persistent and changeable neuralgia comes on, swelling of the joints, called rheumatism, eccentric habits, with a morbid degree of excitability or depression. In these cases a degree of chronicity exists that is very unfavorable, and usually ends fatally.—(*Nashville Journal of Medicine and Surgery*, Jan. 1877.)

ON THE PROGNOSIS OF CEREBRAL HÆMORRHAGE.—*Dr. J. Althaus, British Medical Journal*, July 22, 1876. *Retrospect Practice of Medicine and Surgery*, Jan. 1877.)—Cerebral hæmorrhage may take place—

1. By rupture of large cerebral arteries which have undergone aneurismal dilatation.

2. By rupture of capillary vessels, usually caused by direct injury to the head or by contre-coup, or occurring in the course of that chronic inflammation of the grey matter, which is found in some forms of mental disease, or consequent upon embolism

or tumors which corrode the coats of the blood-vessels of the cerebrum, or upon the accumulation of white corpuscles in the capillary vessels in leukæmia, which distend, block up and rupture them.

3. In consequence of contracted granular kidney, occasioning blood poisoning, and hence over-action and hypertrophy of the coats of the arterioles and hypertrophy of the left ventricle. Insufficient hypertrophy of the coats of the arterioles to counterbalance the excessive impulsive force of the left heart, has a cerebral hæmorrhage from rupture of these vessels as a legitimate consequence.

4. This, the most important form, arises from rupture of the cerebral arterioles after they have undergone the change of miliary aneurismal dilatation. This form occurs in the immense majority of cases called commonly apoplexy, as the works of Virchow, Charcot, and Bouchard have demonstrated. A reliable prognosis, in such cases, is as important to physicians as the treatment; but this is impossible without knowing what significance to attach to certain symptoms whose presence, absence, or degree of intensity make the prognosis hopeful or the reverse.

In early fatal cases there is a high degree of intensity of all the apoplectic symptoms. In the commencement of the attack and particularly when the hæmorrhage is not abundant, the temperature remains normal; after a quarter of an hour, the thermometer in the rectum or armpit shows signs of falling. With a regular respiration and a pulse-rate of 70 or 76, the mercury recedes. If the latter takes place rapidly and reaches 95 deg; the prognosis is bad; but, if the fall is slight—say one degree or one and a half—and is protracted in its production, the prognosis is generally favorable. This fall of temperature is probably owing to irritation or spasm of the controlling centres of heat production.

Where there are severe convulsive attacks, lasting for many minutes, and where the head and eyes are persistently turned away from the paralyzed side, you may conclude that the hemorrhage is progressing more or less rapidly, and that the blood is irritating and undermining the central ganglia, previously to destroying their structure. During this period of the attack you have, therefore, partly symptoms of spasm and partly of paralysis—spasm where there is irritation, paralysis where there is compression or destruction of nervous matter.

After 30 minutes to 36 hours the spasm in the centre ceases either from arrest of hemorrhage or from the blood breaking through into the lateral ventricles and into the fourth, and then the symptoms become purely paralytic in character and the body heat begins to rise. The mercury now running up even to 105 deg., corresponds in prognostic import to the low readings of the first period. If the ascent is rapid, it is a sure sign of the collapse, which precedes death.

In other cases the thermometer, after a comparatively slight fall, rises only a little, if at all, above the normal mean, and there remains. This means arrest of the hemorrhage. All the symptoms may now improve, the coma lightens into consciousness, the pulse become steadier and respiration more regular, but for two or three days the prognosis still remains doubtful for, though the dangers of collapse have passed, those of the possible consecutive cerebral fever may be fatal.

Now inspect the nates closely, for the first symptom of cerebral fever is almost invariably an acute bed-sore in the buttock of the paralyzed side. An erythematous spot or macula appearing on the part mentioned on the second, third or fourth day almost invariably heralds a fatal termination. It has an irregular shape, and varies in size ; from pink at first it gradually changes into purple, and pressure, in the beginning, will cause it to disappear. Its course afterwards is extremely rapid. It cannot be prevented by turning the patient over to the non-paralyzed side, nor by frequent catheterism to prevent the contact of urine with the spot. Similar appearances sometimes, occur on the heel, ankle and knee of the paralyzed side. After the formation of the cerebral macula, the mercury will, in a comparatively short time, run up to 103, 104, and even 105 deg. The symptoms of impending dissolution at the same time manifest themselves.

Treatment may incline the balance toward recovery or death. Venesection is thoroughly irrational, for the condition of the brain during cerebral hemorrhage is not a congestive, but an anæmic one; the organ not only loses blood largely, but, from compression of its arterioles by the clot, is unable to receive a fresh supply. *Eschew the lancet, therefore, as a deadly instrument in these cases.* Neither leave the patient severely alone, but arrest the further effusion of blood from the ruptured coats of the miliary aneurisms by causing contraction of the vessels. The remedy for this purpose is Bonjeau's ergotine, of which you may inject into the subcutaneous cellular tissue a grain every hour, or, where the symptoms are very urgent, even every half hour.

FEVER, ITS NATURE AND PURPOSE.—*Cincinnati Medical News*, Feb., 1877.)—Dr. G. W. Kibbee, in an interesting paper, gives the following conclusions:

1. Vital force, or life principle, is the prime cause of all motion in the human organism, from the first cell formation until the last throb of the heart.
2. Heat at about 98° is the first condition of life in the human body.
3. Health is undisturbed vital action.
4. Disease is disturbed vital action.
5. The causes of health are the presence and influence of those substances and conditions which are congenial.
6. The causes of disease are those substances and conditions that are unfavorable to the normal manifestations of vitality in the organism.
7. The presence or influence of hygienic substances and conditions excites the heart to beat and the lungs to respire with normal force and frequency; the vital heat resulting from that normal vital action is 98°, and normal.
8. The presence or influence of any substance or condition that is unfavorable to life causes increased force and frequency of the heart's beat and of lung action; and the exalted action is for the purpose of expelling the inimical substance, together with the refuse of the system through the depurating organs.

9. Exalted vital action, which hastens the motion of the blood through the circulatory and respiratory systems, by augmented friction and increased oxygenation of the blood, raises the heart above that degree which is congenial to health, provided it is not removed by cool water or cold air as fast as it is originated.

10 When the excess of heat above 98° is removed as fast as it rises, no more injury results to the organism from that exaltation of the vital action stimulated by specific poisons than from that caused by mental excitement, rapid skating in the cold air, or swimming in cool water.

11. Exalted vital action causes excessive heat, and the two together constitute fever.

12. Exalted vital action, even if the resultant excess of heat be removed as fast as it rises, will exhaust the available stock of vitality, and death of the organism results. if a man use it all up in his muscles, or if it be exhausted in resistance to something deadly inimical, under the self-preserving instinct of organic life.

13. Every abnormal change of fluid or solid in the composition of the human organism that occurs under vital control, as in all fevers, is under the influence of excessive heat as a fermenting condition, and without that condition there is no abnormal change in blood or tissue, whether the organism is working rapidly to supply vital force to the muscles or to expel inimical substances.

14. None of the causes of this duality, or fever, which are taken into the blood through the lungs, the seed poisons in all affections and malarial fevers, have virulence enough in them to produce death of the organism by exhausting the vital force in its resistance to them, *if the excessive heat that is eliminated by that resistance be removed with cool water as fast as it rises.*

In a future paper he purposes to give the method by which he has attained his brilliant results.

Therapeutics.

TREATMENT OF CATARRHAL JAUNDICE.—*(Berlin Klin. Wochensch.* Nov. 12, 1877. *Canada Lancet,* June 1, 1877).—Dr. Krull, of Qustrow, Mecklenberg, recommends enemata of cold water as an excellent remedy in the above disease. One to two litres of water at a temperature of 59° Fahr., which may be gradually increased to 72° Fahr., are to be slowly injected into the rectum by means of an irrigator, once a day. The water must be retained as long as is possible. Rapid disappearance of oppression in the epigastrium, as well as of nausea and headache is first remarked; the apetite also quickly returns. In part of the cases thus treated (eleven in all) the fæces were tinged with bile after the second injection. The largest number of injections in any one case, eleven. Most of them had already buen treated unsuccessfully by other methods. Dr. Krull believes that the cold water not only increases the peristaltis action of the bone, but also excites sufficient contraction of the bile-ducts to enable them to overcome the obstacle due to catarrhal swelling or inspissated mucus at the entrance to the duodenum.

REPEATED COLD BATHS IN TYPHOID FEVER.—(*L'Union Medical,* May 29, 1877—Prof. Peter in an address before the Societe Medicale des Hopitaux, on the subject of cold baths as a system of treatment in typhoid fever, summed up his opinion of them, in the following resume :

1. The physician in practice does not consider a typhoid unity; but he is engaged with typhoid *patients,* each offering daily diverse, complex and changeable *indications,* according to the lesious and symptoms.

2. Still less should he consider, only one morbid element, the *excess* of *heat.*

3. All systematic treatment directed towards a single symptom is absolutely illogical and insufficient

4. The good results of the treatment by cold (when it produces any) are not due to the lowering of the temperature

(when the lowered temperature can be maintained), but to a profound perturbation of the nervous system; the loss of heat is therefore a very indirect result of the treatment by cold baths and is due to a dynamic modification of the nervous cutaneous and vascular systems.

5. Now this modification can be obtained by other hydro-therapeutic means, less dangerous than cold baths.

6. There are cases in which even cold sponging, imprudently employed or frequently repeated, is not without danger; a nervous shock, however slight, may become a dangerous one for a system enfeebled by typhoid fever.

7. When an accident does occur as a result of cold baths in typhoid, the dangers are grave and out of all proportion to the expected benefit; accordingly, I do not see the indication for cold baths, either to reduce the temperature or to produce a general modification at the system; and considering the terrible accidents they can bring about, I see only contra-indications.

8. In conditions every way comparable (same hospital, same months, same epidemic, and an equal number of patients) the treatment of typhoid *patients* by cold baths has given in Paris greater mortuary statistics than a rational treatment inspired by the indications.

9. The best system in therapeutics and particularly in the treatment of typhoid patients (I intentionally say *typhoid patients* and not typhoid fever) is still and always will be, to have no *system* whatever.

RADICAL TREATMENT OF FACIAL NEURALGIA BY ACONITINE.—*Paris Medical,* February 15, 1877. *Lon. Med. Record,* April 15, 1877).—W. Gubler, the learned professor of therapeutics of the Parisian University, says: "I do not know a neuralgia of the fifth pair, even a tic-douloureux which has resisted aconitine." He recommends the aconitine of Hottab & Liegeois as excellent and that of Dugurmel as very powerful. Granules and pilules are not reliable even when made from a good article, for one may be discouraged by the nullity of their effect for a certain time and thus may give too large a dose, the nullity of effect in fact, resulting from non-absorption. He advises a solution of the nitrate of aconitine to be employed in which half a milligramme ($\frac{1}{140}$ grain) of the nitrate is contained in a dose. This is equivalent to a quarter of a milligramme ($\frac{1}{280}$ grain) of aconitine. The dose may be pushed much farther, in some very severe cases of long standing it having been carried up to six milligrammes ($\frac{1}{80}$ grain). It offers no dangers if prudently managed. It should not be employed in persons with heart disease.

EFFECTS OF MURIATE OF NARCEINÆ.—(*Neues Peper. A. Pharm.* 11, 12, 1876. *New Remedies,* March 15, 1877).—These results are taken from the elaborate paper of Karl. Heintz:

1. Muriate of Narceine, when administered subcutaneously, acts about in the same dose as morphia, although not always as promptly. This activity probably depends much on the purity of the alkaloid and on the proper preparation of the hypodermic solution.

2. Narceine has some advantages over morphia, as it does not have any disagreeable after-effects; but its narcotic effect much longer, which is likewise an advantage. The salt is very slightly soluble in water and for purposes of hypodermic injection, a solution is best made as follows: 0. 3 gms of muriate of narceine are mixed with 20 gms. of distilled water in a flask or test-tube; the latter is placed in a water-bath and heated until the salt should separate at a temperature exceeding —— hydro chloric acid must be added to the solution, but not more than sufficient to produce a clear solution. On cooling, the mixture looks like curdled milk and requires to be warmed before being used.

TREATMENT OF MEMBRANOUS CROUP.—(*Jaz. Med. de Strasbourg,* Feb. 1, 1877. *Med. Record,* April 14, 1877).—Dr. Walcher recommends in the treatment of membranous croup, both in its primary form and in the form which he regards as secondary to diphtheria of the pharynx, a mixture of one ounce of tincture of eucalyptus with three ounces of syrup, of which he gives a teaspoonful every hour. Children take it readily and if given slowly, any diseased part of the pharynx will be sufficiently impregnated with the medicament. Mild emetics of ipecac are given occasionally, if the patient be strong enough to bear them. Cold drinks are given to relieve thirst, and cold applications are made to the head if there is much congestion. Dr. Walcher has given five drachms and more of the tincture per diem to a child five years of age and has never known any bad symptoms to be produced by it.

JABORANDI IN PLEURITIC EFFUSIONS.—Dr. Grossel of Montpelier, (*Jl. de Therapeutique*, April 10, 1876. *Edin. Med. Jour.* Jan. 1877), arrives at the following conclusions in treating pleuritic effusions with Jaborandi:

1. Jaborandi is very useful in this affection, whatever may be its date and the amount of fluid effused.
2. It usually causes a rapid disappearance of the fluid and the production of the pleural friction sounds.
3. Its effects are of short duration, so that the fluid is often rapidly reproduced, in which case the use of the drug must be perservered in.
4. When the fluid has disappeared, and the pleural friction sounds are heard, the Jaborandi is no longer efficacious; and to complete the cure recourse *should* be had to a tonic treatment and to local applications.

SUBCUTANEOUS INJECTION OF ETHER IN COLLAPSE.—(*Jl. de Med. et de Chir. Prat.* March 1877. *Lon. Med. Record.* April 15, 1877).—M. Vermeuil at La Piete, has employed with success in several cases of collapse, the sub cutaneous injection of ether. With regard to the method of using it, M. Vermeuil advises the surgeon to go about it with the thermometer in one hand and syringe in the other. He might commence by giving fifteen drops, and repeat it in an hour, taking care to ascertain the temperature. If this be not sufficient, the injection may be made as many times as is necessary, the ether being apparently well borne.

Skin Diseases.

PITYRIASIS VERSICOLOR.—Dr. J. Ritchie (*British Medical Journal*, Dec. 16th, 1876,) having noticed that the spores of the fungus Microsporon Furfur constantly shrivelled up when mounted in glycerine jelly as a microscopic specimen, found that the fact was owing to the acetic acid which the mixture contained. This led him to suppose that the latter might be useful in this disease, and experience confirmed his conclusion. He recommends that the parts should first be washed with soap and water and then the mixture of acetic acid and glycerine applied.

INDIA RUBBER CLOTH IN DISEASES OF THE SKIN.—(*Virginia Clinical Record.*)—M. Hardy, of Paris, has now employed india-rubber cloth instead of poultices or local baths since 1868. It is composed of a layer of caoutchouc adherent to a piece of cotton, and forms an impermeable tissue. After a short time an abundant sweating takes place from the part enveloped, under the influence of which crusts and scales are loosened, the epidermis spreads over the ulcers, and the skin becomes softened. A very rapid modification of the skin takes place; two or three days of application suffice to completely clean a scalp covered with abundant scales of eczema, etc. After forty-eight hours, hands affected with chronic eczema, with fissures and cracks in all directions, become cicatrized, and the skin recovers its suppleness. The treatment is of particular value in the second stage of eczema. Oiled silk cannot take the place of the rubber cloth. This method is also serviceable in psoriasis and chronic lichen.—(*Journal of Materia Medica*, Jan. 15, 1877.)

TREATMENT OF ACNE ROSACEA.—(*Allgemeine Wiener Medizinische Zeitung*, No. 37, 1876. *London Medical Record*, Dec. 15th, 1876.)—Neumann has obtained excellent results by brushing the affected skin thrice weekly with a solution of one part of carbolic acid in three or four parts of alcohol. Much thickening or œdema is a contra-indication to this treatment.

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2. A directly paralyzing influence would pre-eminently affect the heart, and this is not so.

3. There would necessarily be paralysis of the vessels of the whole body.

4. The production of congestion of the head is not peculiar to this drug alone, but also occurs with alcohol and the others, to which it is allied, and their action on the nervous centres cannot be doubted.

5. In an experiment which he made by enclosing the hand and forearm of an anæmic girl in an air-tight rubber sack, into which the nitrite was then introduced, not the slightest redness was produced. He thus considers disproved the directly paralyzing action of the nitrite.

He considers it quite open to question whether the hyperæmia caused by the nitrite is really that to which it owes its therapeutic effects, and is not rather a disagreeable accompaniment, while its useful effects are due to the production of a transitory narcosis analogous to that produced by alcohol, ether or chloroform.

PHYSIOLOGICAL ACTION OF QUININE.—(*Centralb. & d. Med. Wiss.*, No. 26, 1876. *Edinburgh Medical Journal*, Jan., 1877.) —Jerusalinsky describes the physiological action of quinine in the following:

1. Small or medium doses (1–5 grs.) cause an increased pulse-frequency with diminution of blood-pressure, except immediately after the injection, when there is a short period of increase.

2. Large doses (20–25 grs.) cause an immediate and rapid pressure fall.

3. The increased pulse-frequency is due to depression or paralysis of the inhibitory and excitation of the excito-motor nervous system.

4. Small doses act as a tonic to the heart, and large doses paralyze that organ.

5. Small doses increase the rapidity of the respiration, large doses render the respiration slower and irregular.

6. The action on the temperature varies; in most cases it falls, but sometimes a rise was observed.

7. The rapidity of the blood flow is retarded by quinine to one-half its original rate, due to paralysis of the vaso-motor centres.

8. The amœboid movements of the white corpuscles and the emigration of the latter from the vessels, as well as their number, are diminished by the drug.

9. The red corpuscles become larger under the influence of quinine.

10. It causes diminution of the spleen and renders it tough and granular on the surface and brighter in color.

11. The latter results are attributable primarily to the effect of the peripheral nervous and muscular elements of the spleen; and secondarily, on the splanchnic and central nervous systems.

ABSORPTION OF MERCURIALS.—*(Prager Med. Wochensch. Cin. Clinic,* April 7, 1877.)—Dr. Hamburger, from a series of experiments and very careful examinations, draws the following conclusions:

1. In order to affect the milk, mercury must be given in the form of suppositories.

2. Mercury used by inunction never affects the milk, but always is found in the urine and fæces.

3. The excretion of mercury takes place principally through the bile.

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ANTAGONISM BETWEEN MORPHIA AND ATROPIA.—(*Dr. Corona, Giorn. di Med. Milit,* April and May, *Edin. Med. Journ.* December 1876).

1. Atropia quickens, but morphia retards and modifies respiration.

2. Atropia produces convulsions, but never sleep in dogs and rabbits; morphia produces deep sleep and coma.

3. Atropia slows, but morphia quickens the heart's action.

4. While the action of atrophia continues, the temperature remains stationary or is slightly increased; during the acceleration caused by morphia, the temperature falls.

5. The most marked symptom caused by atropia is dilatation of the pupil; with morphia, the pupil may be dilated, stationary, or contracted. If atropia is injected in a large dose, dilatation does not occur on account of the paralysis of both the circular and radiating fibres of the iris.

6. Atropia always, morphia never produces vaso-motor paralysis.

7. Atropia depresses reflex action and always produces paralysis of the posterior part of the body in animals; morphia either leaves reflex action intact or sometimes exalts it.

8. After poisoning by either drug, the lungs, liver and system were normal. The heart and large vessels were always full of blood, but it was coagulated in the morphia cases, and fluid and blackish in the atropia ones. The meninges were always congested, while the brain substance was constantly anæmic. The medulla oblongata and tubercula quadrigemina were never hyperæmic, while their meningeal covering was always so.

9. The toxic dose varies both in regard to the age and race of the animal. For morphia, it is much greater in rabbits than in dogs. Atropia was tolerated in large doses; it never proved fatal in rabbits in less than 50 centigrammes, except in very young animals.

In respect to the alleged antagonism of the two drugs, he remarks:

Morphia, in small doses, removes the symptoms of atropia and produces sleep. During morphia sleep, atropia even largely given, does not alter the system of morphia, nor does it affect the sleep. Intra-venous injection of the two poisons showed that a much smaller dose was sufficient to produce rapid and grave poisoning; but even then the morphia produced its action instantaneously and its symptoms always superceded those of atropia. Intra-venous injection of large doses of the latter and very small doses of the former, was always followed by sleep and the appearance of the atropia symptoms was tardy. In all cases, after the disappearance of the morphia symptoms, those of atropia appeared in intensity proportionate to the largeness of the dose given for the purpose of counteracting the morphia symptoms. Hence, he concludes that a partial physiological antagonism between atropia and morphia may be recognized, but that the theory of a mutual therapeutic antagonism cannot be accepted. Morphia is available as an antidote in atropia-poisoning, but the former cannot be combatted by the latter.

Pathology.

BONE MARROW IN PERNICIOUS ANÆMIA.—(*Boston Medical and Surgical Journal*, April 12, 1877.)—Cohnheim, in a letter to Virchow, describes a change observed by him in the marrow of the bones of a subject of pernicious anæmia. During life the symptoms were typical of the disease, and after death the usual pathological changes were noted, but, moreover, the marrow of all the bones, vertebræ, ribs, sternum, and cylindrical bones was found very red, but without evident hæmorrhage. Microscopically, an almost entire disappearance of the fat cells of the marrow was manifest. Instead there were found colorless cells, of various sizes, single multinucleated giant cells, and a few cells containing red blood corpuscles. Almost an equal number of red cells were found. Of these the minority consisted of the ordinary biconcave discs, while globular red non-nucleated corpuscles were more noticeable. The latter varied in size from the diameter of a normal blood corpuscle to twice that of a white corpuscle. Still more abundant were red nucleated cells, varying in size, though most of them were equal to the smaller epithelioid marrow cells. The nuclei were colored like the cells. In repeated examinations of the blood up to two weeks before death, no nucleated red blood corpuscles had been found, but they were present, though not in large numbers, in the blood removed from the body veins. The spleen and liver contained them also.

THE INFLUENCE OF EXCRETA IN THE PRODUCTION OF TYPHOID FEVER.—(*The Doctor*, April 1, 1877.)—At the sitting of the Paris Academy of Sciences, Feb. 26th, M. Geurin reported the results of a series of experiments made to test the supposed direct influence of water closets in producing typhoid fever. He experimented upon rabbits, injecting fœcal matter, urine, blood, etc., from typhoid patients, and summarizes his conclusions as follows:

1. The fœcal matter contains, after issuing from the system, a toxic principle capable of causing death in a class of animals, in time varying from a few hours to a few days.

2. The same holds good for urine, blood, mesenteric liquid, and the detritus of mesenteric ganglions, and of ulcerated intestinal mucous of typhoid subjects.

3. These matters, after some months, are found to retain in large measure, their original toxical principles.

4. The fœcal matter of healthy subjects, or of those affected by other diseases, have not the toxical principles which appear in excrementitial products of typhoid subjects.

EFFECT OF HÆMORRHAGE INTO SEROUS CAVITIES.—(*Deutsches Archiv. fur Klin. Med.*, 1876. *Boston Medical and Surgical Journal*, April, 5, 1877.)—The aspiration of fluid blood from an intra-thoracic hæmorrhage, fourteen days after the injury, suggested to Penzoldt the idea of attempting to determine, experimentally, the relation of the hæmorrhage into serous cavities to their walls. The experiments were made, not only in reference to coagulation but also to absorption and inflammatory changes, and were performed upon rabbits and a goat. The results were, that:

1. Blood introduced into the thoracic cavity remained fluid for some time; a few hours only in the case of large amounts, somewhat longer when smaller quantities were present, but in neither case more than twenty-four hours.

2. In addition to the blood-clots a fluid resembling blood was found which was either serum from the original hæmorrhage, in which case it did not coagulate after evacuation, or if it coagulated, was a secondary pleuritic effusion.

3. Therefore, the living, healthy pleura delays coagulation.

4. Blood introduced into the peritoneal cavity remained

fluid for some time, and either was absorbed in a few days or remained longer and was coagulated.

5. Blood within the pericardium clotted rapidly.

6. Accordingly in the case suggesting the experiments, the bloody fluid aspirated was not, in all probability, blood, but pleuritic effusion mixed with blood corpuscles from the extravasated blood.

Blood clots were probably present in the pleural cavity, as fluid blood in such quantity could not remain there for so long a time without coagulating. In such a case, therefore, treatment by a simple puncture would produce but a partial effect.

DANGER OF KEROSENE SMOKE.—(*Wiener Medicin. Presse,* Oct. *Boston Medical and Surgical Journal,* Dec. 23d, 1876.)—A merchant who returned home late one night, found his wife unconscious and groaning heavily. Whilst waiting his return she had turned down the light and laid herself upon the bed. In this position of the wick, where the light is turned down almost to extinction, if the oil is bad, a vapor mixed with an innumerable quantity of specks of soot, diffuses itself through the chamber, and so covers the eyes, nose, and respiratory passages that one runs the danger of suffocation.

MORAL.—Leave the lamp burn brightly or extinguish it.

Obstetrics.

THE INFLUENCE ON THE FŒTUS OF MEDICINES ADMINISTERED TO THE MOTHER DURING PREGNANCY AND LABOR.—(*American Journal of Obstetrics,* April, 1877.)—An interesting discussion upon the above subject in the N. Y. Obstetrical Society, commencing in the meeting of Feb. 6th and continuing during several subsequent reunions, has brought into a compass handy for reference a number of experiments and cases bearing upon this topic. Dr. Munde, in reference to the transmission of medicinal agents to the child through the maternal blood, cited, upon the authority of Schrœder, the investigations of Reitz, who, after injecting cinnabar into the blood of a pregnant rabbit, found the red particles of the chemical in the blood of the fœtus, particularly distinct in the capillaries of the pia mater, and Schrœder, therefore, considers the transmigration of maternal blood cells into the blood of the fœtus easily conceivable.

Gusserow, of Zurich, injected tincture of iodine and a solution of ferrocyanide of potassium into the stomach of pregnant rabbits, guinea pigs, and dogs, but was unable to find any traces of the drugs in the liquor amnii or in the urine of the fœtus, even when the dose had been given five days before. On the other hand he detected iodine in the liquor amnii and in the urine of the new-born infant after administering iodide of potash for some time (about two weeks) to the mother, before her delivery.

Zweifel, of Strasburg, in 1874, in five cases where chloroform had been inhaled during labor, found traces of the agent in the placenta and in the urine of the new-born infant, thus showing that that vapor, at least, is transmitted to the fœtus. This discovery has not yet been confirmed.

Benicke, of Berlin, gave salicylic acid to twenty-five women during labor, and found it in the urine of the children immediately after birth, the shortest time after its administration being forty minutes. In contradiction to Gusserow, he concludes that the osmosis between the mother and fœtus is an exceedingly active one. Paul Ruge and A. Martin arrived at the same results with that agent, but found only traces of iodide of potash after prolonged use of the drug by the mother.

Fehling, of Leipzig, injected woorara into the jugular veins of two rabbits and a dog in order to produce the specific effect of the poison on the fœtuses. The latter, however, utterly failed to show the influence of the drug, and even those rabbit fœtuses whose mothers had been anæsthetized to apnœa with chloroform persisted in moving actively and respiring freely when the uterus was opened. This last experiment, in connection with universal practical experience, lays Zweifel's observations on the rapid passage of chloroform into the fœtal system open to question.

The effect upon the fœtus of morphia, administered hypodermically to the mother, is somewhat difficult to determine, as the drug is usually employed in more or less abnormal cases, and the asphyxia of the new-born child can be as well ascribed to the dystocia as to the morphine. Fehling collected sixty-eight cases in which the remedy had been so administered, and among those where the labor terminated spontaneously, four children were born dead and six asphyxiated; four other children, three of which were easily delivered by the forceps and one by podalic extraction, died unexpectedly, a few hours after birth, without apparent cause. The cerebral organs of all these cases were very hyperæmic. Kormann, the first to recommend hypodermic injections in obstetric practice, in fifty-four cases had six still born children and six which died shortly after birth, and still he declares that he never saw any injurious effects upon the fœtus from such treatment.

Dr. Fordyce Barker called attention to the facts that mothers strongly affected by emotional causes and mental impressions during pregnancy, were likely to beget children which would be seized with convulsions shortly after birth, while, also, the progeny of women suffering from eclampsia during labor were frequently similarly affected; and, lastly, that opium poisoning in the infant sometimes presented the same symptom, so that in a given case, where any two of these factors were present, it was a difficult matter to select the offending one. In opposition to Zweifel's observations, Dr. Barker said that we know thousands of women who have been kept profoundly under the influence of anæsthetics for hours before and during labor, and that the infant when born has been as active and lively as if no such agent had been administered to the mother. Others, no doubt, he added, had noticed this curious fact, that pregnant women who were notorious opium eaters, had given birth to healthy children, and that these children, on taking the mothers' milk, were poisoned by the opiate. He concluded his remarks with the following propositions:

1. There is no evidence which can be accepted in science that narcotic drugs, administered to the mother, ever produce their specific effects on the fœtus in utero.

2. Therefore, such drugs should be used without fear of their effect on the fœtus whenever they are necessary for the health or the life of the mother.

Prof. Peaslee, in summing up his conclusions, said he did not believe that medicines in general have any appreciable effect upon the fœtus in utero, even when administered for a considerable length of time (several weeks at least) to the mother.

Dr. W. R. Gillette, after citing a number of cases, stated his opinion that morphia, when administered to the degree of producing its physiological phenomena in the mother, will invariably produce a relative condition of narcotism in the newborn infant.

Dr. Thomas agreed with the latter gentleman, but still employed morphia injections, for almost every measure in medicine is sometimes attended with danger, if proper care is not exercised.

MEANS OF DETECTING THE DEATH OF A FŒTUS.—*(Lyon Med.*, Oct. 29, 1876, *Lon. Med. Record*, Dec. 15, 1876). Dr. P. Marduel, as the results of different series of experiments by various authorities, publishes the following: In a gravid uterus containing a living child, the temperature is from 0.27° to 0.54° Fahrenheit higher than in the vagina, the temperature in the latter being higher than in the axilla. In a gravid uterus containing a dead child, the temperature is lower than that of the vagina.

THE OBSTETRICAL ASPECTS OF IDIOCY.—*(Brit. Obstetrical Jl.*, Jan., 1877). Dr. J. Langdon Down's observations extend over eighteen years, and include over 2,000 cases.

1. Primogeniture seemed to play an important part, twenty-four per cent. of all the idiot children observed being primiparous.

2. The total average number of children in the same families was 7.9.

3. Probably a large number of primiparous children also were weak-minded, without being actual idiots.

4. The cause of this preponderance may be attributed to —*a*, the exalted emotional state of both the mother and father; *b*, the increased difficulty of parturition; *c*, suspended animation.

5. Forty per cent. of idiots, who had been resuscitated out of the latter condition, were primiparous.

6. Instrumental interference seemed to have no injurious influence.

7. Twin births seemed to have an injurious effect, since two per cent. of the last thousand cases were twins, and in the the same families there were only two per cent. of twins not idiots.

8. In many cases there was history of severe vomiting, falls, injuries, or hemorrhages during pregnancy. The first seemed to be especially injurious.

9. Fright accompanied by syncope was also present in many cases.

10. Of the 2,000 cases, the ratio of males to females was 2.1 to 9.

11. When a neurosis was paternal, he found that the male progeny suffered, and conversely.

12. He could determine nothing satisfactory as to the effect of the administration of ergot.

SUPPORT OF THE PERINEUM DURING LABOR.—(*Rich & Louis' Med. Jour.*, April, 1877). Dr. Turnipseed exclaims against the utter impotency of the present means employed to prevent lacerations of the perineum. He states from his experience, that very nearly all the resistance to the advance of the head is due to the action of the transversi perinei and constrictor vaginal muscles, that the advancing head forces down the posterior wall of the vagina into a cul-de-sac behind them. To prevent its formation, the head must be resisted by outside pressure, either forcing the head to describe the arc of a circle to reach the vulvar opening or retarding labor at the expense of the woman's strength. He recommends to pass two or more fingers of the right hand into the anus, applying them firmly against the superior wall of the rectum and pressing with great force perpendicularly upward, and, if the head has already found the cul-de-sac, diagonally backward and upward. Should these efforts not move the head of the child, he places two or more fingers of the left hand within the vulva at the fourchette, pressing them between the head of the child and the above-cited parts, and using a lever force by forcing the hand downward in the direction of the raphi of the perineum.

POST PARTUM HEMORRHAGE.—(*Can. Med. and Surg. Jour.*, April, 1877). Dr. Handsel Griffiths, of Ireland, from the very satisfactory results obtained in two cases of post partum hemorrhage, recommends the following treatment. In both cases every means had been adopted to check the hemorrhage, but without any result. Ether spray was then tried, and after directing it for a few seconds over the abdominal walls, along the spine and over the genitals, the uterus at once responded and the cessation of the hemorrhage was almost immediate. The superiority, in point of convenience, of this means of applying cold, over the ordinary application of cold water, is patent to every one.

Surgery.

SUPPURATING CYST OF THE KIDNEY.—(*L' Union Medicale*, June 5, 1877).—M. Dieulafoy reported the following interesting case to the Societe de Medicine in the meeting of March 10th. M. P., treated by Dupuytren in 1826 for a vesical catarrh and operated on for stone by Sanson in 1836. Since that time, he has hardly missed a week without passing numerous and quite large calculi, which were unaccompanied by renal colic or vesical pain. Until 1872, his general health, laying aside a few slight attacks of gout, was excellent, but about that time, he noticed a feeling of discomfort and weight in the abdomen and that the latter was increasing considerably in size. In Feb. 1873, his appetite, after growing less for some time, was completely lost, oppression and fever appeared and in a few days, the dyspnœa had increased to such an extent, that asphyxia appeared imminent. On examination, M. Dieulafoy discovered an enormous tumor filling up a portion of the right thoracic region and extending down through the abdomen into the iliac fossa. By palpation, the limits of the tumor could not be well defined and an elastic rather than a fluctuating feeling was imparted to the fingers. Dullness, on percussion, extended from the fourth inter costal space anteriorly and from the spine of the scapula posterior down to the ilium and in front, it overlapped the linea alba by four inches. Heart normal. In the lungs sub-crepitant rales, particularly in the left, from pulmonary congestion. M. Dieulafoy was of the opinion that the tumor was a suppurating renal cyst, following a hydronephrosis of the right kidney. As respiration was so impeded that the patient could live but a short time if he were not immediately relieved, Dieulafoy punctured the abdomen, two inches to the right of the umbilicus, with needle No. 2, of his aspirator and at a depth of an inch and a quarter fluid commenced to pass into the instrument. Five quarts of an odorless, thick liquid, containing neither membranes nor gravel were drawn off to the speedy relief of M. P. He continued in comparative comfort for ten days, when a second puncture, a little to the right of the former one, for the tumor had diminished some, permitted three quarts and a half of purulent fluid to pass out. Three subsequent operations were performed, with only a few days interval between each, and on each occasion, the tumor was in-completely emptied of the contained pus. In consequence of this contained reproduction of purulent matter, M. Dieulafoy commenced to think of radical measures and accordingly proposed to his patient to leave a trocar permanently in the opening to the tumor. M. P., absolutely refused the measure and as he was greatly relieved by the punctures, he wished to be treated that way if it took all summer and winter besides. During the following seven months, there was such a reproduction of purulent matter, that the tumor was evacuated twenty-six times; still the patient's health was improving steadily and the formation of pus was unattended by fever nor disturbed in any way his general condition. Gradually the secretion commenced to diminish, so that during 1875, but five punctures were necessary and in 1876, but two and finally six months after the last aspiration, a puncture failed to discover any pus.

Noteworthy points are the age of the patient, who is an old man; the length of treatment, three years; the number of punctures, forty-five; the absence of constitutional reaction during the formation of pus in such quantity; the absence of any accident after so many operations with the aspirator; the present fine health of the patient, who still however continues to pass numerous calculi at very frequent intervals and without any pain.

ORIGIN AND CAUSES OF NEAR-SIGHTEDNESS.—(*Boston Medical and Surgical Journal*, Dec. 21, 1876. *Prof. Arlt, Vienna. Dr. H. W. Williams.*)—1. Near-sightedness manifests itself most frequently between the ages of ten and sixteen.

2. A predisposition to it may be suspected as early as the fifth or sixth year, if the child has a general resemblance to parents or other members of the family who are already myopic.

3. The prediction is not, however, certain until the special symptoms appear.

4. Congenital near-sightedness is not as yet proven.

5. The predisposition to myopia—but not the condition itself—is inherited; but it may also arise where no hereditary tendency exists.

6. Near-sightedness is not primarily developed after the age of sixteen.

7. The growth of the eyes ends at puberty, or at the latest, at the twentieth year.

8. The veins of the young myopic eye are subjected to greater pressure in regarding near than distant objects, and this intra-ocular pressure causes a giving away of the juvenile sclera, which is still tender and dilatable, near the posterior pole of the globe, where it is the least supported

9. If this intra ocular pressure is prolonged by continuous use of the eyes, or if the resumption of work occurs before the

dilated membranes have recovered their normal condition, a chronic engorgement of the intra-ocular vessels exists, and the elongation of the globe continues stationary, or by serous exudation is progressive.

PROPHYLAXIS.—1. Youthful eyes should not be overtasked with work upon small objects.

2. In the intervals of study, etc., opportunity should be given for recreation and practice in looking at objects at a distance, and particularly to city children.

3. In the convalescence from measles, scarlatina, and other diseases in young children, small playthings, pencil drawing, etc., should be prohibited as objects of amusement.

CHLOROFORM AND ETHER IN THEIR MEDICO-LEGAL RELATIONS.—(*Ohio Med. Recorder*, Jan., 1877). Dr. A. M. Denig, in an interesting paper before the Columbus Pathological Society, presents the consideration of chloroform and ether in their medico-legal relations, under the following three heads:

1. Can they be administered successfully to persons during natural sleep without awakening them?

2. Can they be forcibly administered for criminal purposes, in opposition to the will of the person to whom they are given?

3. Can a person give competent testimony as to what occurred during the anæsthetic state?

For convenience sake, he discusses them in reverse order, and arrives at the following conclusions:

1. In the third question, the person is supposed to take the anæsthetic voluntarily. Now the action of chloroform is divided into three stages—first, that in which the symptoms resemble alcoholic intoxication, in which the patient is often noisy and talkative and gives play to the emotions, etc. This stage is usually very short and rapidly passes into the second, in which the consciousness is wholly lost, and in which the patient lies passive and helpless. In the third case narcosis is profound, the breathing stertorous, muscular relaxation extreme, and complete abrogation of all reflex actions. Every one who is at all

acquainted with the phenomena excited by chloroform and ether knows that there is a time during the first stage of the intoxication in which pain is nearly or quite abolished. and yet the consciousness of the patient is almost intact. At no time during this stage, however, is there a complete abolition of the power of volition, the patient is not deprived of the power of resistance, and they will frequently tell you that they were entirely conscious of all that transpired, and yet felt little or no pain if any operative procedures had then been made. Therefore there was a voluntary act of the will in allowing the operation to proceed, with a perfect consciousness of the fact that they could have prevented it had they so desired. Now if, during this time, any criminal act takes place, a passive, unresisting submission would imply her entire acquiescence in the act, and make her "participo criminis." But, when the power of resistance or outcry is abolished, the consciousness of a real motive for it is lost also. If, now, an outrage be perpetrated or attempted on a woman, she cannct be aware at the time of the liberty which is being taken with her person, and her statements should be entirely repudiated as either the product of her imagination or a deliberate and wicked misrepresentation for sinister and selfish purposes.

2. Can chloroform be administered forcibly? Ordinary experience in the administration of anæsthetics teaches us that none of these articles can be forcibly administered with felonious intent without the exercise of a force sufficient to accomplish the robbery or other contemplated crime without resorting to their use, and that, when such an allegation has been made, a careful examination of the facts will unequivocally prove a collusion between the parties—the assailants and the assailed.

3. Can chloroform be administered during sleep? Besides a number of successful cases scattered through the medical journals, the first systematic experiments made to answer this question are those of M. Dolbean, surgeon of Beaujon Hospital, Paris. Three different series of attempts were made by him, assisted by his "internes," and from his account it is obvious that the more the experimenters became familiar with the "mo-

dus faciendi" the number of persons successfully anæsthetized proportionately augmented; at first it was one in four, then two in six, then six in nine.

The experiments were made publicly, in the surgical wards, upon patients of all ages, and twelve M. of chloroform were given at a time upon a napkin, held some distance from the person's face. As out of the twenty-nine subjects on which these experiments were tried ten—more than one-third—were successfully anæsthetized, we may say that it is difficult, but it is certainly possible, to render a person insensible by the use of chloroform vapor administered during sleep. Accordingly, the expert must, in justice, declare that it is possible, if it is *not* easy, to render a person insensible by chloroform during a natural sleep, in order that he may be made the victim of a criminal assault.

PRELACHRYMAL OILY CYSTS.—(*L'Union Med.*, Jan. 6. *American Journal Medical Sciences*, April 1, 1877.)—Prof. Vermeuil recently reported three examples of a pathological condition which he believes has not yet been described by authors on diseases of the eyes. The patients were two males, aged respectively twenty and twenty-one years, and a young girl aged nineteen. In the first case there was an indolent, colorless and irreducible cyst of the size of a cherry stone situated at the inner angle of the eye, in front of the lachrymal sac. The contents were drawn off by a Pravaz syringe, and the liquid withdrawn had all the appearance of olive oil, which also it resembled in chemical characters. In the second case the tumor was of the size of an almond, quite indolent, occupied the whole of the inner angle of the orbit, and never had caused any disturbance of vision or obstruction to the flow of tears. A puncture allowed about two and a half grammes of a liquid similar to that of the first case to flow out. In the girl the tumor was situated a little above the lachrymal sac, was very hard and of the size of an ordinary cherry. On section, a similar oleaginous fluid escaped. In the three cases, the operations proved radical ones.

OSSEOUS LESIONS IN INFANTILE SYPHILIS.—(M. Parrot, *Archives de Physilogie*, *Lancet*, Nov., 1876.)—They are the most common manifestation of syphilis, and make their appearance some days, weeks or months after birth. They are diagnosticated from rachitic changes by their appearance in the earlier periods of infancy, and on the other hand, the latter lesions are rarely seen before the sixth month of extra-uterine life. The long bones of the limbs, scapula, ilium and cranial bones are those most frequently affected with the syphilitic taint, while the ribs, clavicles, metacarpal and metatarsal bones and the vertebræ more rarely suffer. The bones are always attacked symmetrically. The lesions are arranged by M. Parrot under four heads, according to the degree of osseous change. Those of the 1st degree are seen in the fœtus and in infants who live but a few days. The affected bones are covered with a layer of osteophytic growth and the epiphysial cartilages are thickened. so that sometimes the diameter of the bones attains double the normal size. In the 2nd degree, the layers of new bone are not so compact and are deposited usually upon the lower extremities of the humerus, the upper of the radius, the anterior surface of the femur, and the inner surface of the tibia. At the same time a gelatiniform atrophy of the cancellous tissue takes place which soon extends to the compact substance and lastly to the layer subjacent to the epiphyseal cartilage. This osseous degeneration gives rise to the syphilitic pseudo paralysis of the new-born. In the 3rd degree, which affects older infants, an hypertrophy of the medullary substance gradually encroaches upon and displaces the osteophytic productions of an earlier date. This occurs most frequently in the lower third of humerus. In the 4th degree, spongy tissue develops itself at the periphery and the extremities of the long bones, which lesion occurring after the sixth month of life may pass into and be mistaken for those of rachitis.

PERCUSSION OF BONES.—(*Centralb. of Chirurg.*, 1876, No. 43. *Medical Times*, Jan. 6, 1877). Prof. Lucke believes that percussion may prove of great aid in the diagnosis not only of painful spots in a bone, but also of hypertrophies and deposits in the marrow and bone substance. Percussion of the epiphysis of a long bone gives invariably a higher note than that of the diaphysis, while callous and foreign growths give a lower resonance. The examination must always be a comparative one, that is, both the normal and the diseased bone of the opposite side should be sounded. In the percussion of the extremities, they must be lifted from the floor or table. E. C.

AURAL POLYPI.—(Dr. Ladreit de Lacharriere. *Archiv. des Maladies de l'Oreille et du Larynx*, Aug., 1876. *London Med. Record*, Dec. 15, 1876). After speaking of the frequency of their occurrence, their varieties, different modes of treatment, the inconveniences and dangers of various caustics, the Doctor suggests the following as a not too violent caustic, and still one sufficiently strong to destroy what one wishes to attack. He proposes sticks of zinc chloride, a little morphia and wheat flour. These points, dried in the oven, acquire sufficient hardness to be introduced without breaking into the offending tissues. The caustic action is accompanied by very slight pain, and it does not penetrate too deeply. To destroy the parts remaining after excision, for example, he considers the points invaluable.

TREATMENT OF HYDROCELE BY ELECTRICITY.—(*Prager Med. Wochenschr*, No. 28. *Can. Med. and Surg. Jour.*, April, 1877). Von Friedenthal recommends electro-puncture, on account of the success which he has obtained with it in hydrocele. The gold needles must be introduced only into the skin, and not into the sac. He passes a current for three minutes and repeats the sitting every second day. Five or six operations are generally sufficient to produce complete absorption of the hydrocele. Occasionally the hydrocele returned, but the same objection occurs in the iodine treatment

MILK DIET IN VESICAL DISEASE.—(*Lancet*, Dec. 16. *The Doctor*, Jan., 1877). Dr. G. Johnson recommends an exclusively milk diet in cystitis and after lithotomy. He has noted its value in several cases of the acute form, but particularly in a chronic one of two years' duration. The modus operandi is sufficiently obvious, the urine being largely diluted with water and rendered mild and unirritating by the digestible nature of the food; the bladder, therefore, being comparatively undisturbed by its contents, reverts to its normal condition, the inflammation of the mucous membrane subsides, and the morbid secretion of the puriform mucous ceases. Milk may be taken cold or tepid, and not more than a pint at a time.

CAN A STROKE ON THE FACE RUPTURE THE MEMBRANA TYMPANI?—(*Dr. Fritsch, in Medycyna*, No. 32, 1876. *Clinic*, June 2, 1877.)—The writer answers affirmatively by citing several cases, and claims that, on testing by Valsalva's method, a loud whizzing can be heard in the external auditory passage. If the opening in the membrane be the result of disease, the sound is of a hissing character. The opening produced by a blow is a fissure, whilst that caused by disease is round or oval.

OSSOUS DEPOSITS IN CHOROID.—Dr. Wadsworth recently exhibited to the Boston Society for Medical Improvement (*Boston Medical and Surgical Journal*) an eye which had been removed on account of sympathetic ophthalmia, and which contained a bony formation in the choroid and a calcareous deposit in the lens. The case had the following history: The patient, fourteen years ago, while serving as a fireman on a steamer, got what he supposed to be a spark in his right eye, which excited a severe inflammation, lasting several weeks, and leaving the sight of that eye very much impaired. The eye, however, remained quiet for five or six years, when a blow from a potato roused fresh inflammatory manifestations which resulted in total blindness. From that time, namely, eight or nine years ago, the eye has been irritable and tender, often being quite painful. In August last he presented himself at the City Hospital with sympathetic inflammation of the other (left) eye, which dated back a week. The right eye, the one originally injured, was somewhat shrunken, the cornea irregular and considerably diminished in size; there was no anterior chamber, the pupil was closed and the iris disintegrated. There was circumscribed corneal congestion and tenderness on pressure. The left eye showed an active iritis, with several posterior synechiæ and the media were somewhat cloudy. The right eye was enucleated without an anæsthetic, the patient refusing to take it. At the end of three or four weeks treatment in a darkened room, by hot fomentations and constant use of atropine, etc., the posterior synechiæ of the remaining eye were broken down, the inflammation subsided, and the functions of the organ became apparently normal—a result which, in the unanimous opinion of modern authors, rarely follows a sympathetic inflammation.

SHORTENING OF THE LOWER LIMB.—*(Archives of Clin. Surg.* Feb. 1877).—Dr. J. S. Wight after obtaining from the measurement of the uninjured lower limbs of sixty persons, results similar to those reported by Dr. Cox in the *Am. Jour. of Med. Sciences,* April 1875, makes the following practical conclusions:

1 In all cases of fracture of the femur we cannot always prevent the so-called shortening; the number of shortened limbs cannot be accurately fixed.

2. In a certain number of cases of fracture of the femur, the injured limb will remain shorter than the other.

3. Persistent excessive efforts to bring the injured limb down and make it as long as the uninjured one will sometimes fail and are calculated to do harm, since the strong fascia of the thigh offers great resistence and since the injured limb may have been shorter than the other before the injury.

4. To give the injured limb a maximum length, it may be necessary to completely relax the powerful muscles of the thigh by etherization or by tiring them out by extending weights gradually applied.

5. The possibility of having the injured limb longer after treatment than the other must be recognized, and the most probable explanation of such a result must be given.

DANGERS OF SURGICAL OPERATIONS ON OPIUM USERS.—(Dr. E. Henderson, *Edinburg Med. Jour. Med. and Surg. Reporter,* Jan. 3, 1877) —The Doctor, in speaking of surgical practice in China, makes some practical observations upon the results of operations on the confirmed opium subject which are not unworthy of the attention of our own surgeons, viewing the great amount of the drug which is now consumed in our country, and especially by those who submit to operations for the cure of chronic affections. He says: That patients debilitated by the excessive use of opium bear poorly the shock of injuries or operations; their tissues possess but little vitality, slough rapidly and heal slowly. They are restless and irritable, have but little appetite, and no power to assimilate what they do eat. In the confirmed opium smoker, the surgeon would do well to confine the use of the knife to cases which require absolutely his interference. During treatment and after operations the drug should not be withheld, but rather given in increased doses. Opium smoking, in the case of those who suffer from painful and incurable diseases, possesses certain advantages over other forms of administration.

TREATMENT OF GLANDULAR SWELLINGS AND ABSCESSES—(*Gaz. Med. de Paris*, Dec. 2, 1876. *Med. Record*, Feb. 3, 1877). M. Quinart, of the Ghent Hospital, not only advises, like Nelaton, to attack simple engorgement of the glandular tissue at the outset with a series of blisters, but he employs the same treatment when pus has already formed. In this way resolution of suppurating glands can be obtained, which already contain several ounces of pus. When perforation of the skin is threatened, he punctures the sac at the most dependent part of the tumor, where the instrument must traverse a large extent of healthy cellular tissue. When the sac is emptied it is covered, whatever its extent, by a blister which overlaps it on all sides by one or one and a half inches. The following day, the blister is dressed with mercurial ointment; as soon as the skin begins to cicatrize, a second blister is applied, and so on. Among other cases, M. Quinart has cured an abscess that extended from the angle of the jaw to the clavicle, and which contained over ten and a half ounces of pus. The tumor was punctured just above the clavicle, and then entirely covered by a large blister. The second day, the little wound was reopened by means of a stylet, and a quantity of serous pus escaped. The third day, the greater part of the sac was closed, the fluid that accumulated in the most dependent part was reabsorbed, and no mark of this immense abscess now remains, except a small cicatrix above the clavicle.

Gynæcology.

UNUSUAL UTERINE HEMORRHAGES.—(Dr. Fordyce Barker, of N. Y., *London Med. Record*, July 15th, 1876. *Braithwaite's Retrospect*, Jan. 1877). Some uterine hemorrhages occur independently of any peculiar condition of the uterus itself. They may be owing to—*a*. Certain conditions of the ovaries—*b*. To conditions of organs remote from the uterus or constitutional causes—*c*. To toxic constitutional causes. In the first class we find: 1. Acute ovaritis, a very rare condition in the non-puerperal woman, unless under the influence of strong sexual excitement, or by some sudden shock, emotional or physical, the process of ovulation is arrested, and the ovaritis excited, when profuse hemorrhage may follow. 2. Ovarian dysmenorrhœa, a condition sometimes attended by profuse uterine hemorrhage, though the opposite is rather the rule. This class of cases, sometimes called of ovarian temperament, is characterized by the early appearance of menstruation, an excitable nervous temperament, and by a prodromic stage of two or three days before menstruation, in which the patient experiences languor, nausea, headache, pains in the breast and frequently pains in the region of the ovaries.

Great benefit is obtained in these cases from the use of Potass. Brom. during several days before the expected return of the period; leeching, when the ovarian symptoms appear, and the most perfect quite and rest in the recumbent posture during the entire time of each menstrual epoch. 3. Acute ovarian displacements, such as a sudden prolapsis of an ovary, from violent effort or shock, or produced by constipation. Here we finish the acute symptoms of displacements of the ovary and the condition may be accompanied by menorrhagia extending over two or three menstrual periods. The rational method of treatment is to overcome the displacement and the ovarian congestion. In the second class, *c*, we have metrorrhagia and menorrhagia, resulting from obstructed portal circulation through the right cavities of the heart, and also from certain diseases of the kidneys. Disturbed brain-action from' emotional causes may also be here mentioned.

In the third class, *c*, we find: Malaria as a not unfrequent cause of a prolonged but not profuse menstrual flow. 2. The various exanthemata, in which dangerous hemorrhage sometimes appears.

There is a fourth class of class of cases which is difficult to classify; but an example of which possesses the following traits: A woman who has had no uterine disease, after having borne one or two children, exhibits a remarkable tendency to obesity, accompanied by an excessive uterine hemorrhage. These are troublesome cases, for the most careful physical examination fails to detect the cause of the hemorrhage, while the usually healthy appearance and flushed countenance of the patient are apt to deceive the medical attendant. These are really cases of anæmia and should be treated first by ammon. acet., and saline cathartics to deplete the blood of its excess of watery elements; afterwards the potass. chlor., and the preparations of iron are indicated, and on this plan of treatment the patient will, instead of becoming stouter and increasing in weight, diminish in size and weight and improve in health and strength. Chlorotic menorrhagia may be met with as well as chlorotic amenorrhœa.

For the hemorrhages attending the climacterie period, Dr. Barker recommends the following treatment, if no tumors or malignant disease exist. Where the uterus is increased in size and weight, these suppositories should be used for a week previous to the return of the expected period: ℞. Ext. of ergot (Squibbs), scr. ii.; cacao. butter ʒj. Divide into twelve suppositories, one of which is to be introduced high up into the rectum, morning, noon and night, and the patient must keep the recumbent positure for at least one hour.

In prolonged, though not excessive hemorrhages, there is probably some lesion affecting the lining membrane of the uterus, and he then advises the introduction into the cavity of the uterus, of cylinders of Iodoform:

℞. Iodoform ʒiiss.; gum tragacanth, gr. xv.; mucilage, q. s. Divide into ten cylinders, each one, one and one-half inches in length. One of these should be introduced daily for five or six days previous to menstruation. The objection to these is the extremely disagreeable odor which attends their use, as likewise a most disgusting taste in the mouth two or three minutes after their introduction into the uterus.

Editorial.

Notice to Correspondents, Etc.—Communications intended for publication, and books for review, should be addressed to "Editors of Detroit Medical Journal, care of E. B. Smith & Co., Detroit."

All remittances of money, all letters on the business of the Journal, pertaining to subscriptions or advertisements, should be addressed exclusively to the publishers, E. B. Smith & Co., corner Fort and Griswold Streets, Detroit, Mich.

Original Articles, Reports of Medical Societies, Observations, Correspondence, News, etc., of general interest, are respectfully solicited from every source. Articles should be practical and carefully prepared.

The Editors will not be responsible for statements made over the names of contributors.

Vaccination in Detroit.

The recent action of our Board of Health in instituting a plan of general vaccination and re-vaccination must commend itself to all who have realized the extent to which small-pox has prevailed for some months in this city. Contrary to its usual custom the disease has prevailed more extensively since the advent of warm weather than during the winter. To account for this increased prevalence, notwithstanding the influence of the ventilation and sunlight incident to summer, is not now our purpose. It is sufficient to assert that the existence of the disease to the extent to which it has prevailed in this city for the last two years is a reproach to an enlightened community. The Board of Health have, during these years, faithfully recommended and have even clamored for the enforcement of the plan which has now finally been determined on, but have been opposed at every step by the Common Council, which, from mistaken notions of economy, has affected to believe the plan unnecessary if not unjustifiable.

Since the work has been vigorously prosecuted the disease has almost entirely abated, and inasmuch as the vaccination was at first confined to sections in which small-pox at the time or had recently prevailed, it is fair to presume that it and the abatement occupied the relations of cause and effect. It may moreover, be safely predicted that the thorough general carrying out of the plan will be followed by an almost absolute immunity from the loathsome disease next winter. The experience of other cities certainly justifies such a hope.

With but few exceptions this general vaccination has the approval of the profession, and it is hard to understand how the opposition of these few can be other than captious. It is certainly one of the wonders that in this year of grace 1877, members of our profession can be found opposing what has demonstrated itself beyond the shadow of the semblance of doubt to be one of the most beneficial discoveries of medicine, ancient or modern. The intelligent layman no longer dreads small-pox, and it has lost its terrors to even the masses, and all because of the recognized virtues of vaccination.

There are certain facts which the present general vaccination has corroborated. Among these is the one that the protective influence of vaccination during childhood does not last through life, and that therefore a re-vaccination is necessary. The vaccinators in this city report a very large number of successful vaccinations in adults who exhibit evidence of previous vaccination in childhood; thus clearly demonstrating that the influence of the former operation had died out. It is impossible to say from the appearance of a scar whether or not the system is protected by the original vaccination. Numerous instances have been noted in which subjects presenting clearly defined and typical vaccination scars, have for the second time been successfully vaccinated. A second vaccination has also been successful in a number of persons who had previously suffered from small pox. It is remarkable, however, that in every such case the person suffered from the disease during childhood; in no single instance did the vaccination succeed in persons who had had small pox after reaching maturity. The lesson deducible from these facts is plain. The changes incident to the period of growth are capable of eliminating the taint imparted in childhood, and thus render re-vaccination necessary. The virus used has been the bovine and the success which has attended its use demonstrates that it is as readily absorbed as is the humanized. The constitutional effects have been no greater than those following the use of the humanized, and notwithstanding the hot weather during which the vaccination has been conducted, not a single case has been reported showing the disgusting sores which are by no means uncommon after the use of humanized virus. The danger of communicating syphilis or other taints is entirely eliminated by the careful use of bovine virus, and thus one of the great objections to vaccination is removed. We think the result of the present vaccination in this city will be to bring humanized virus into disrepute, and to correspondingly bring the bovine into favor. The public vaccinators have abstained from vaccinating children suffering from the disturbances incidental to teething and in this they have acted judiciously. Instances have come to our knowledge in which this rule has been disregarded to the manifest injury of the child. J. J. M.

Memoranda.

Vienna, Austria, contains one physician for eight hundred and fifty-eight inhabitants. Berdapest has one physician for each four hundred and eighty-four persons.—*Clinic.*

Dr. Chas. Nichols, late of the Government Hospital for the Insane, at Washington, D. C., has been appointed superintendent of the Bloomingdale Asylum, at New York.

R. Berendsohn, 48 Nassau street, New York city, is publishing a series of photographs of medical men in Europe. They are chiefly taken from oil paintings by celebrated artists.

The "Toledo Medical Press Association" now publishes the Toledo *Medical Journal.* Its editors are, Drs. Jonathan Priest, W. C. Chapman, and Thomas Waddel. It is a neatly published and well edited medical journal, worthy of abundant support.

Dr. S. Weir Mitchell says that he has a patient, a lady, who has lived two years a reasonably active life on two quarts of milk a day. She weighs ninety-eight pounds, and is five feet high. Two women, weighing respectively eighty-eight and ninety-six pounds, kept their weight precisely when at rest in bed by taking three pints of milk daily, and fatten slowly on five pints.

Inebriate asylums have thus far justified their establishment by actual results. Women of the upper or middle classes, in order to be induced to seek an asylum, need special surroundings and selected associates in the asylum. The Women's Temperance Union, of Philadelphia, in its home for women addicted to drink, has recognized these facts, and will, we doubt not, meet the success it deserves.

An English journal gives an authentic case in which a girl, a manufacturer of cigars, having a chancre upon her lips, moistened with her saliva the tips of all cigars she made for three days. How many similar cases occur none can tell. Further, tobacco strippers have a practice of moistening the leaf with spray from the mouth. In both of these ways syphilis may be spread over the fragrant cigar and inoculate the unsuspecting devotee.

At the meeting of the regents of Michigan University, June 26th, '77, certain changes were ordered in the plan of instruction, viz., that the course of instruction hereafter be extended to nine months. Students who have already matriculated are to be allowed to continue the course upon the basis upon which they entered, namely, six months in a term.

Students entering after the present date are to be provided with a consecutive course of instruction and study continuing three years Students properly qualified may enter the department of medicine and surgery at any time, and pursue such branches of study taught as they may select, receiving specific certificates for the time spent and for the subjects pursued; but after the session of 1878–9 no students shall be recommended for the degree of doctor of medicine who has not passed a thorough and satisfactory examination upon all the subjects taught in this department, and who has not been in regular attendance upon medical lectures in this or some other reputable school of medicine, recognized by this university, for at least two full courses, the last of which must have been spent in this department. After the session of 1878–9 graduation will duly occur at the June commencement.

The salaries of Profs. Palmer, Frothingham, Maclean, Dunster, Ford and Langley were fixed at $2,500 each; J. G. Gilchrist at $2,000, W. J. Herdman, $1,300, Chas Stowell, instructor in the physiological laboratory, $1,000, Victor C. Vaughn, instructor in medical chemistry, $750.

Dr. Morgan, at the instance of the Michigan State Homœopathic Society, was ejected and Dr. W. J. Hawks, of Chicago, appointed as Professor of Theory and Practice of Medicine (Homœo.).

The American Public Health Association will convene in Chicago, Tuesday, September 23d, 1877, in accordance with the adjournment of the previous Annual Meeting.

NOTE.—The Executive Committee has recommended that, for this meeting, the leading discourses, papers and discussions shall be arranged under the following divisions of subjects:

I. Sanitary Topography and the Systematic Drainage and Sewerage of Cities and Villages.—Other Problems of Public Health.

II. Sanitary Control and Extermination of the Contagia of Typhoid (Enteric) Fever, Scarlatina, Small-Pox, etc.—Other Problems of Domestic Health.

III. Expert Testimony and the Pursuit of Exact Scientific Researches in Public Health Service.

Under these three general divisions, contributions are already promised upon the following topics, and, upon several of them, there will be discussions and written statements from original observation and experience:—

1. Discourse, by the President of the Association, on the Sanitary Topography of Chicago, and the Artificial Remedies of

[illegible] 2. Report on the proposed Sanitary [illegible] 3. A paper on Problems old and [illegible] Sewerage of Chicago and [illegible] 4. A Paper on the Sanitary Geography [illegible] Pulmonary Diseases. 5. Statement and [illegible] the Problems of Sanitary Inspection, [illegible] of Food Supplies—Animal and [illegible] the Sanitary Lessons of the Great [illegible] 7. A paper on "Stamping Out" Scarlatina [illegible] Disease. 8. A paper on San[illegible] Preventive Measures in regard to Diph[illegible] Teachings of 22 years' records of [illegible] and Scarlatina in a city. 10. [illegible] Dwellings and Dwelling Grounds. [illegible] and the Relations of Heredity, [illegible] A paper on the Entailments of [illegible] Families. 13. Report on a Practi[illegible] Complete and Authentic Records of [illegible] the United States. 14 Sug[illegible] Sources and Propagation of Trichina, [illegible] to Sanitary Measures. 15. Sugges[illegible] Care of Sailors and other Water-[illegible] and Inland Waters. 16. Sanitary [illegible] in the Interest of Travelers [illegible] Report and Discussion on Expert Testi[illegible] the Prevention of Insanity. [illegible] the Sanitary and Economical [illegible] Treatment of the [illegible] Tests and Supervision of [illegible] A paper on Health in Edu[illegible] Schools. 22. Report on [illegible] observed in western Vermont. 23. [illegible] Forms of Enumeration and In[illegible] Public Health require in the [illegible] Report on Available Methods of [illegible] Authorized Information [illegible] Prevalent Diseases. 25. Discourse on the Judicial and other Aids of Law in Public Health Service—A Practical View of the Question. 26. Discourse on the present state of Exact Knowledge of the Causation and Prevention of Destructive Diseases which most harm Mankind.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

MASSACHUSETTS STATE BOARD OF HEALTH. Eighth Annual Report. 1877. Paper; pages, 500.

The report opens with a general account of the work done by the board, its expenses, etc. Dr. Chas. F. Folsom, by an examination of the Nashaua river basin, illustrates and enforces certain facts and principles respecting the pollution of streams, the disposal of sewerage, and the relation of drainage to health. As these studies were based on a very careful survey of the Nashaua river basin, they have a definite and positive value.

E. S. Chesebrough, city engineer, Chicago, Ills., contributes an elaborate article upon sewerage, its advantages, disadvantages, construction and maintenance.

Dr. J. G. Pinkham gives a very perfect account of the sanitary condition of Lynn. Maps and diagrams illustrate the text. All interested in the conditions of health and disease will do well to study this article.

Dr H. P. Bowditch presents an article upon the growth of children based upon about 24,500 observations. Tables and diagrams are given to deduce the proper teaching of these figures. The following results are of general interest:

The growth of children takes place in such a way that until the age of eleven or twelve years boys are both heavier and taller than girls of the same age. At this period of life girls begin to grow very rapidly, and for the next two or three years

Natural Disadvantages. 2. Report on the proposed Sanitary Survey of the United States. 3. A paper on Problems old and new in the Sanitary Drainage and Sewerage of Chicago and other western cities. 4. A Paper on the Sanitary Geography of Phthisis Pulmonalis and other Pulmonary Diseases. 5. Statement and Discussion of the Problems of Sanitary Inspection, Safe-keeping and Transportation of Food Supplies—Animal and Vegetable. 6. Discourse on the Sanitary Lessons of the Great Fire in Chicago. 7. A paper on "Stamping Out" Scarlatina and the extinguishing of Zymotic Disease. 8. A paper on Sanitary Observations and Preventive Measures in regard to Diphtheria. 9. A review of the Teachings of 22 years' records of Mortality from Croup, Diphtheria and Scarlatina in a city. 10. A paper on the Miasmata of Dwellings and Dwelling Grounds. 11. A paper on Family Health and the Relations of Heredity, Habit and Hygiene to it. 12. A paper on the Entailments of Ebriety in Individuals and Families. 13. Report on a Practicable Method for securing complete and Authentic Records of the Causes of Death throughout the United States. 14 Suggestions respecting the Sources and Propagation of Trichina, considered with reference to Sanitary Measures. 15. Suggestions for the better Hygienic Care of Sailors and other Watermen, upon the Coastwise and Inland Waters. 16. Sanitary Safety in Railway Traveling—Facts in the Interest of Travelers and of Carriers. 17. Report and Discussion on Expert Testimony. 18. A paper on Hygiene in the Prevention of Insanity. 19. Statement and Discussion on the Sanitary and Economical Importance of the best Surgical and Medical Treatment of the Needy Poor. 20. A paper on the Tests and Supervision of Milk Supplies of Large Cities. 21. A paper on Health in Education, as viewed in each Grade of the Schools. 22. Report on Enteric (Typhoid) Fever as observed in western Vermont. 23. Preliminary Outlines of the new Points of Enumeration and Inquiry which the Interests of th[illegible] require in the Tenth National Census. [illegible]able Methods of Promulgating Sanitary [illegible]tion in regard to Vital S[illegible]c. Dis-

Professor Obernier, of Bonn, the in and its membranes. Professor articles on acute and chronic inflam- its membranes, and Prof. E. Hitzig the and atrophy of the brain.

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surpass boys of the same age in both height and weight. Boys then acquire and retain a size superior to that of girls, who have now nearly completed their full growth.

Children of American born parents are, in this community, taller and heavier than children of foreign born parents, a superiority which seems to depend partly upon the greater average comfort in which such children live and grow up, and partly upon differences of race and stock.

Pupils of American parentage at the public Latin school, private Latin school, and Massachusetts Institute of Technology are (apparently for similar reasons) superior in height and weight to the generality of boys of American parentage attending the public schools.

Pupils of the same selected schools are also taller and heavier than English boys of the non-laboring classes attending public schools and universities, the superiority in weight being, as a rule, more marked than in height.

The relation of weight to height in growing children is such that at heights below 58 inches boys are heavier than girls in proportion to their stature. At heights above 58 inches the reverse is the case.

Dr. Chas. F. Folsom contributes a long article, mainly historical, on "Disease of the Mind." In this history he shows that there has been a progressive development of rational views in the treatment of mental disease.

The volume closes with reports on diphtheria in Lynn, in Salem, and in Lowell.

As a whole, this report is creditable to the board, an honor to the state of Massachusetts, an aid to the medical profession, and a means of good to the American people.

ZIEMSSEN'S CYCLOPŒDIA OF THE PRACTICE OF MEDICINE, Vol. XII. DISEASES OF THE BRAIN AND ITS MEMBRANES. Cloth; pages, 1,000. 1877. New York: William Wood & Co.

Prof. Nothnagel, of Jena, contributes the articles on anæmia, hyperæmia, hæmorrhage, thrombosis and embolism of the brain. Prof. Huebner, of Leipsic, the articles on syphilis of the brain and nervous system. Professor Obernier, of Bonn, the article on tumors of the brain and its membranes. Professor Huguenin, of Zurich, the articles on acute and chronic inflammation of the brain and its membranes, and Prof. E. Hitzig the articles on hypertrophy and atrophy of the brain.

As would be expected nearly half of the work is occupied with the subject of inflammations of the brain and membranes, and nearly a third by Nothnagle's account of cerebral anæmia, hyperæmia, hæmorrhage, thrombosis and embolism. These are very important and practical subjects, and will be studied with interest and profit by all practitioners.

Obernier's account of tumors of the brain is well prepared and is of interest as showing the difficulties of making a correct diagnosis in such cases. The same remark applies with even more emphasis to Hitzig's account of "Hypertrophy and Atrophy of the Brain."

The latest positive advances in cerebral anatomy and physiology are recognized through the entire volume. 'Tis of great interest to observe what a flood of light is thus thrown upon otherwise incomprehensible subjects. At the same time it is painfully apparent on every page that we have only fairly begun our study of the physiology and pathology of the brain. Mechanically the volume is exactly similar to its predecessors. We have space only to allude to a few of the views presented.

Softening of the brain occurs in various forms, viz., red, white and yellow. Especial interest attaches to the conditions under which these are developed. Cohnheim, by microscopic observation, has shown that if one terminal artery be occluded, the blood at once begins to flow back from the nearest unaffected artery into the vein and the entire vascular system belonging to the district of the obstructed artery. Hence results hyperæmic engorgement, when the vessels of the affected district become distended with the back flow of blood, structural changes begin to occur in the walls of the vessels involved. When these changes have gone on to a certain degree, the escape of blood corpuscles through them into the surrounding tissues becomes possible. Thus is developed "red" softening.

If the blood should coagulate in the vascular district there could be no inflow of the venous current and no considerable escape of blood corpuscles. This state would constitute the "yellow" or "whitish-yellow" softening. These researches show that in every case the form of the softening depends upon the establishment of a backward venous current or otherwise.

Softening of the brain is of the nature of a *necrobiosis,* and in no respect inflammatory. These researches have a very practical bearing upon the treatment of cases of softening. Violent perturbing or depressing measures are emphatically contra-indicated.

Obernier calls attention to the disturbances of the special senses during the growth of cerebral tumors. "Decrease in the acuteness of vision, even complete blindness is not only very frequent in cases of cerebral tumors, but also often one of the the first symptoms." From a very complete collection of cases, Annuske reaches the conclusion "that optic neuritis is almost without exception a constant attendant upon cerebral tumors, and consequently occupies the front rank among all the symptoms of intra-cranial neoplasms" Hence in every case of suspected cerebral tumor the fundus oculi should be carefully examined. The ophthalmoscopic picture, with its swollen, opaque, and imperfectly defined optic papilla, with its fine arteries and broad and tortuous veins, is such that, once seen, it can never be forgotten

To comprehend these, we must remember that they represent a degenerative process in the nervous elements whose most important part results from an increased intra-cranial pressure. The pressure within the cavity of the skull caused by a tumor dams up the fluid between the sheaths of the optic nerve. The optic nerve, at its place of entrance into the globe, will become incarcerated, and will undergo an œdematous swelling at this point. This, no doubt, hastens disorganization of the prolongation of the nerve.

Huebner, in discussing the treatment of syphilitic affections of the nervous system, says that the iodide of potassium is indicated when the affection is confined to one nerve trunk or branch, when the symptoms indicate that the syphilitic affection is of a very limited extent, and when the general disease exhibits the characteristics of a mild, slowly progressing malady. But he says the drug must be given in doses from fifteen grains to three drachms daily; large doses only are efficient.

The careful reader will observe that cerebral inflammations, abscesses, etc., very often take their origin from a neglected otorrhœa Place this by the side of the fact that most of the laity and many physicians believe that it is useless or positively harmful to treat an otorrhœa, and the comparison is sufficiently startling to arouse some earnest thought and study.

TRANSACTIONS OF THE 79TH ANNUAL SESSION OF THE MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND. 1877. Paper; pages, 190.

The most notable article in this pamphlet is the annual oration, by Dr. S. Weir Mitchell. His theme was "Extremes in Therapeutics," which are at times in some cases so valuable, but which are so very apt to be abused or misused.

We cannot forbear to quote some illustrations. A gentleman afflicted with psoriasis inveterata had spent many years seeking relief from the best physicians of Europe and America, all to no purpose. He was such an object of loathing to himself and others that he contemplated suicide. In three weeks this man was bled two hundred ounces, and when he was so feeble as to be hardly able to turn in bed his scales fell off and his skin became as that of a little child. He now could tolerate arsenic as he could not before, and remained cured.

A case of syphilis in which there was extensive disease of both tibiæ and many of the cranial bones had in vain been treated by several able surgeons. In despair he resorted to a mulatto doctor. He was put on his back, bled freely and dieted closely. As the patient became very feeble he was fed at brief intervals on soups and wild game This was repeated many times, but the result was a cure.

The following case illustrates the value of absolute rest: Four years ago I saw a woman, pallid and feeble, who had menstruated irregularly until two years before, and then stopped at the age of thirty. Everything wearied her, to walk, to read, to drive, to sew; she was a woman with a pack and a shawl on her shoulders, and a sofa for a home and hysterics for a diversion. She had tired out doctors and exhausted drug shops and spas and travel, and outlived a nurse or two. The deformity man had found a spinal curvature and put on a brace; the gynæcologist had had his turn; the quacks had had their share, and she wore blue glasses to keep out the blessing of daylight. She was five feet four, and weighed ninety-four pounds, and had as much figure as a hat rack and had no more bosom than the average chicken of a boarding house table. Nature had wisely prohibited this being from increasing her breed. Like you I had had my failures with such cases, and I was driven to reflect as to what new device I could try. Because everything tired her I put her at rest in bed. I made rest despotic, absolute. Then I fed her with milk at brief intervals. But in a few days my plan failed. Rest she took to well enough, but attempts to feed resulted in sick stomach and diarrhœa and new loathing of food. I now employed systematic massage and the abrupt muscle stirring of an induction current. In this way I strove to give her, while at rest, the benefits of exercise. To my great pleasure, I found in a few days a return of appetite and digestion. Both the massage and the induction current raised the general temperature ½° to 1½° F. The patient was fed by hand to make the rest more complete, and because human beings, like turkeys, can be made to eat more when fed by another agent. Her digestion improved, she reddened and fattened, the nails became pink, the veins began to show in the limbs. At first the extremities became cold under massage, then they grew warm, and at last when she was well the massage no longer elevated her temperature. The fat came first on the face and neck, and then on the back and belly, and last on the limbs. This woman came to me thin, sallow, ugly and feeble. I sent her home fat and well and vigorous and handsome, and menstruating steadily. Thus I re-created blood and tissues and fattened."

The reports of the various sections are passably good. Dr. S. Theobald contributes an extended experience tending to show the value of large probes in the treatment of strictures of the nasal duct.

Dr. B. B. Browne discusses the rectal and vesical diseases due to displacements of the uterus, and Dr. R. Winslow shows the value of strychnia in incontinence of the urine.

REMARKS ON SULPHATE OF QUINIA. By Alexander H. Jones. 1877. Paper; pages 16.

This paper seems to be written in the interests of Powers & Wightman, of Philadelphia. Our readers are well aware that for many months the medical profession has done what it could to obtain the removal of the 20 per cent. duty on sulphate of quinia. Success has been so apparent as to call forth this rejoinder. The above mentioned firm have grown enormously wealthy in the manufacture of this article, protected by their vast capital and the twenty per cent. duty. We see no reason why they could not compete successfully with other manufacturers in open market. At any rate we think the time has come to consider the rights of sick poor. We hope that the next congress will remove this 20 per cent. tax from the unfortunate dwellers in malarial regions.

THE DISCOVERY OF ANÆSTHESIA AND "THE WOMAN'S HOSPITAL." By J. Marion Sims, M.D.

The first of these pamphlets is a reprint from *Virginia Medical Monthly*. The last is a reply to a circular from Drs. E. R. Peaslee, T. A. Emmet and T. Gaillard Thomas. These gentlemen are in a muss, just as many others have been. The right and wrong of the matter is likely to be decided by each just as he believes and trusts the statements of either party.

Incidentally we may remark that an overweening desire for notoriety seems to us the foundation of the trouble. It may be questioned whether there is wisdom in writing elaborate biographies of living men. As the pamphlet has been sent to the profession very extensively it can make its own comments.

RESTRICTION AND PREVENTION OF SCARLET FEVER. An eight page Circular Issued by the Michigan State Board of Health. 1877.

This document is evidently prepared with great care for popular distribution. It must do much to aid an intelligent public in mitigating the horrors of scarlet fever.

VIBURNUM PRUNIFOLEUM.—ITS USES IN THE TREATMENT OF THE DISEASES OF WOMEN. By Edward W. Jenks, M.D. Paper; pages, 6. Reprint from Vol. 1, Gynæcological Transactions.

An excellent account of a relatively new but valuable therapeutic agent.

FUNCTION OF THE UVULA AND THE PROMINENCE FORMED BY THE AZYGOS UVULÆ MUSCLES, AND SIMPLE MODE OF CLEANSING THE NASAL AND PHARYNGO-NASAL PASSAGES. By Thomas F. Rumbold. Reprinted from the *St. Louis Medical Journal.*

A CASE OF ABDOMINAL PREGNANCY TREATED BY LAPAROTOMY. By Dr. T. Gaillard Thomas. Reprint from Vol. 1, Gynæcological Transactions.

ANALYSIS OF SEVEN HUNDRED AND SEVENTY-FOUR CASES OF SKIN DISEASE. By Dr. L. D. Bulkley. Reprint from *N. Y. Medical Journal,* 1877.

SIXTH ABSTRACT OF THE ANNUAL REPORTS OF THE COUNTY SUPERINTENDENTS OF THE POOR OF THE STATE OF MICHIGAN. 1876. Paper; pages, 70.

INFLUENCE OF CLIMATE ON PULMONARY DISEASES IN MINNESOTA. By F. Staples, M.D. Reprint from Transactions of Amer. Med. Association. 1876.

PROPOSITIONS IN REGARD TO ANIMAL VACCINATION. By Frank P. Foster, M.D. Reprint from Transactions of the Academy. Vol. 1, series No. 2.

IMPORTANCE OF THE UTERINE EBB AS A FACTOR IN PELVIC SURGERY. By Horatio R. Stover, M.D. Reprint from *Edinburgh Med. Journal,* Jan., '77.

ON THE NOMENCLATURE AND CLASSIFICATION OF DISEASES OF THE SKIN. By L. Duncan Bulkley, M.D. Pages, 10. Reprint from Archives of Dermatology.

PNEUMATIC PRESSURE AND THE GENU PECTORAL POSTURAL IN THE REDUCTION OF UTERINE LUXATIONS. By A. Sibley Campbell, M.D. Reprint from *Amer. Journal of Obstetrics.* Jan., '77.

ON SEXUAL DEBILITY AND IMPOTENCE. By Samuel W. Gross, M.D. Reprint from *Medical and Surgical Reporter*, May 5, 1877.

THE PROPHYLACTIC TREATMENT OF PLACENTA PREVIA. By Dr. T. Gaillard Thomas. Reprint from *American Practitiouer*, May, '77.

REPORTS OF THE CITY PHYSICIAN, BOARD OF HEALTH AND SANITARY ENGINEER OF THE CITY OF CONCORD, N. H. 1876–7. Paper; pages, 39.

DEDICATORY EXERCISES OF THE NEW BUILDINGS OF RUSH MEDICAL COLLEGE. History of the College, etc. Paper, pages, 46. 1877.

MILK SICKNESS. By Dr. W. H. Phillips. Reprint from Cincinnati *Lancet and Observer.*

REPORT ON DERMATOLOGY. By Lunsford P. Yandell, jr., M.D. Reprinted from *American Practitioner.*

PUBLIC ACTS OF THE LEGISLATURE OF THE STATE OF MICHIGAN FOR 1877. First forms of the entire work.

TWO CASES OF MORPHŒA. By L. Duncan Bulkley, M.D. Reprint from Archives of Dermatology, 1877.

Meteorological Report of Detroit for June, 1877.

BY C. HENRI LEONARD, M. D., OBSERVER FOR STATE BOARD OF HEALTH.

BAROMETER.—Highest, 30.147; lowest, 29.425; range, .722; daily average, 29.883.

TEMPERATURE.—Highest, 85°; this was at the 2 P. M. observation of the 18th; lowest, 42°; this on the night of the 23d; range, 43°; daily average, 67.2°. This has been, in comparison with other years, a *cool* June. The highest registration is from three to eight degrees less than the highest of previous Junes; the minimum registration, with but one exception (in 1875) the lowest by from two to twelve degrees has been registered in the last five years. The daily average has been less, by from one to two degrees, than that of the previous five Junes, save that of '75; that year, the daily average was the same as this one. We had hotter weather in this year's May than in June.

WINDS.—Prevailing direction, south-west (13 days southwest). Greatest velocity, 36 miles; total number of miles traveled, 4,452, a gain of some 200 miles over last month. At two observations there were "calms," viz., on the morning of the 7th and the evening of the 10th.

CLOUDS.—Number of clear days, 7; cloudy, 10; rainy, 17.

RAINFALL.—Total precipitation, 4.80. Day of greatest rainfall was the 9th, the precipitation was then 1.35 inches. In '73 we had 5.18; in '74, 4.53; in '75, 3.25; in '76, 1.51 inches; hence this has been a *rainy* month.

MOISTURE.—Highest absolute humidity was at the evening observation of the 30th; 8.08 grains per each cubic foot of air was then present. This was not the day of highest temperature. On the afternoon of the 18th we had the highest temperature, which was *two* degrees higher than that of the afternoon of the 30th, when (the 30th) 8.05 grains of moisture were present. On the afternoon of the 18th 6.71 grains of moisture were present; at twelve other observations of *lower* temperature more moisture was present. The highest "relative" humidity was 94 per cent.; this was on the mornings of the 16th, 26th, and 28th; the "absolute" at these observations was respectively 6 29, grains, 6.93 grains, and 6.29 grains.

OZONE.—Comparatively absent, on the 26th, after a 24 hour exposure, the paper was discolored to 1 on the scale. "Traces" were noticed nearly every day.

FOGS—Were present on mornings of the 25th, 27th and 28th. The 7th was "hazey" at the three observations, an unusual occurrence.

Detroit Medical Journal.

NEW SERIES. VOL. I. SEPTEMBER, 1877. No. 9.

Original Communications.

Three Cases of Pelvic Abscess.

BY THEODORE A. McGRAW, M.D , PROF. OF SURGERY IN DETROIT MEDICAL COLLEGE.

The following cases illustrate the principles of treatment of abscesses in the tissues immediately surrounding the womb.

I. N., a girl, 16 years of age, came under my charge last September in Harper Hospital. She had always borne a good character, and her trouble had been referred to taking cold at the menstrual period. She had been ill for more than a year, with pelvic pain, disordered menstruation and spinal tenderness. She had constant inclination to pass water, and pain during micturition. A purulent discharge from the vagina, at times very profuse, seemed to indicate the presence of an abscess. Digital examination revealed a swelling situated in the anterior aspect of the vagina. When a catheter was passed into the bladder, the finger in the vagina could detect a great thickening of the vesico-vaginal septum—no orifice could be discovered through which pus discharged from the tumor into the vagina, though an exploring needle thrust into the swelling, showed the presence of pus.

I cut into the abscess, let out the matter, and put in a drainage tube of India rubber. This occurred on September 10th, 1876. The tube slipped out at the end of ten days, and the abscess seemed to be nearly healed. The pus collected again and required re-evacuation. This was done on October 27th, and a new drainage tube, prepared by Dr. Longyear, the House Surgeon of Harper Hospital, so as to be self-retaining, was inserted. On June 22d, 1877, she was discharged, cured of her trouble.

Mrs R., aged 47 years, and the mother of three children, entered Harper Hospital in May, 1877. She had suffered for nearly two years from an abscess in the pelvic tissue between the womb and rectum. In October, 1876, her menstruation had taken place for the last time. She was complaining bitterly of bearing down pain, of irritability of the bladder, difficulty in evacuating the bowels, and general pelvic distress. The abscess had, at one time, discharged through the vagina, and there was, when I examined her on May 30th, a sinus still existing, through which a small quantity of pus was discharged. This sinus ran anterior and immediately adjacent to the rectal wall. A probe in the sinus and the finger passed high up into the rectum seemed to be separated from each other by mucous membrane only. Anterior to the sinus there was a large tumor, continuous with the posterior wall of the uterus.

An exploring needle having shown the existence of pus, I plunged a bistoury into the swelling between the orifice of the sinus and the uterine wall, the patient lying upon her side and face and Dr. Boothey holding a Sims' speculum in the vagina. I was horrified on withdrawing the knife to notice, bubbling from the wound, a large quantity of offensive gas. The immediate inference was that the knife had entered the bowel. This proved, however, not to be the case. The wound was entered with a catheter, and a large quantity of offensive pus discharged. The gas had evidently penetrated into the abscess through the old sinus, which communicated with it, and permitted a slight escape of pus. It had then, as the woman lay on her side, floated on the top of the fluid, and had first escaped after the incision. The patient was immediately relieved of her bad symptoms, and began rapidly to recover and gain in flesh.

Drainage tubes were inserted and retained until the abscess had healed from the bottom. Menstruation returned in the latter end of June, and she left the hospital on June 28th, to remain, I trust, permanently well of her trouble.

In both of these cases chills and hectic fever were present until the abscesses had been opened and a free channel secured for discharge, and then disappeared. These cases illustrate the advantage of drainage tubes in the treatment of these troublesome and tedious varieties of abscess. A simple incision for the purpose of evacuating the contained pus, will rarely cure a large pelvic abscess. The organs are so movable and the tissue so lax that it is difficult to make an incision so large or so dependent as to secure complete and constant drainage. This may be done, however, by tubes of India rubber, secured in place, and left until healing has been nearly accomplished.

The third case was one of different character. Mrs. G., a German woman, thirty years of age, had been married several years but had no children. About the middle of January, 1877, she was seized during her menstrual period with severe cramps in the lower part of the abdomen. They passed away in a few hours, but recurred during the next night. For six weeks thereafter she was continually seized with periodical attacks of pelvic pain, which occasionally would extend the whole length of the right lower extremity. She lost appetite and courage, and after seeking relief in vain from several physicians, finally placed herself in my hands.

After keeping her under observation for a few days, and satisfying myself by repeated trials with quinine, arsenic and salicine that the periodical pains were not due to malarial poisoning, I made a thorough examination of her pelvic organs. There was no abdominal tenderness on external pressure, but external pressure combined with digital examination revealed a small, hard tumor on the right side of the womb, apparently not more than two inches in diameter, which was painful when grasped between the two hands. The uterus was freely movable, the tumor moving with it. The uterine sound revealed normal dimensions of uterine canal. I called Dr. Jenks in consultation. He differed with me in diagnosis, as he was disposed to regard it as a circumscribed abscess forming in the peritoneal sac, while I looked upon it as an inflammation of the cellular tissue between the folds of the right broad ligament. Luckily no opportunity was given to verify diagnosis by an abduction. Anodyne suppositories and medicines were prescribed to relieve pain, while the patient could be kept under observation. Nothing, however, seemed to give relief from the ever recurring cramps and pains. In the morning she would be quite easy, but about 4 P. M., the distress would begin, and not cease during the entire night.

Finally, on May 1st, the swelling growing neither larger nor smaller nor softer, assisted by Dr. A. M. Hawes, I put the patient under ether, and placed her on the left side and face in order to use a Sims' speculum. I fixed the womb with a tenaculum, and, guided by the fore finger of the left hand, thrust one of the smallest sized aspirator needles into the tumor. A drop of pus followed, but only a drop, and the aspirator was powerless to draw more. On the withdrawal of the needle, I discovered that the swelling had suddenly collapsed, the hard, circumscribed tumor having given place to a soft, illy defined tumefaction. I thrust a larger needle through the same puncture and succeeded in getting about a tablespoonful of pus. All operative procedures were then discontinued. The patient was put to bed, and for the next two weeks suffered severely from an intense inflammation of the bowels. Recovering from this, she found herself free from her old pain, and is now well. This case was remarkable from the peculiar persistence of symptoms without any evidences of a tendency in the abscess to grow or to discharge, from the injury following the puncture of the swelling by the smallest sized needle in my case, and by eventual recovery after a renewed inflammation had excited fears of a reaccumulation of pus.

I am inclined to account for the symptoms following the puncture by the assumption that the abscess was between the folds of the broad ligament, and that the needle, before entering it, passed through a pouch of the peritoneum. The discharge of pus through the puncture would necessarily cause a peritonitis of a more or less severe grade. It might also be explained on Dr. Jenks' theory that the abscess occupied a pouch of the peritoneum, and that the needle was inadvertently thrust too far, passing through the abscess and making a passage into the, as yet, unaffected perineal cavity beyond.

I do not think, however, that this theory is correct, for I use the aspirator, in such cases, in such a way that the fluid is drawn into the needle the moment it enters the cavity in which it is contained, and I cease to advance it when that object is attained.

Exsection of Hip Joint and Subsequent Amputation of Thigh.

REPORTED AND READ BEFORE THE FULTON COUNTY MEDICAL SOCIETY BY A. J. MURBACH, M. D.

Johnny Keller, of healthy parentage, aged 12 years, was taken with severe pain in left hip joint and fever, in October, 1875, and was treated for acute and every other form of rheumatism by Drs. Sneer and Clover (Eclectics), of Stryker, Ohio, without any good result.

I saw the case first in June, 1876, and found all the symptoms of morbus coxarius, about entering the third stage. The limb was greatly flexed at both the hip and knee joints. Anchylosis of hip joint was complete, though but fibrous, limb adducted, pelvis raised and projecting backwards, etc.

His general condition was bad, anæmic and emaciated, muscles flabby, and his appetite was poor.

I first put him on general tonics, such as iron and quinine, cod liver oil, nourishing diet and out door exercise, all of which was kept up most of the time until at present, so far as practicable.

In the latter part of August I proposed subcutaneous division of the flexor muscles or their tendons and application of Prof. Sayre's short splint, in order to get extension of the limb, but when the splint arrived, an abscess pointed on the posterior aspect of thigh, which made its application very painful, and had to be abandoned. This was about the first of October, and from this time on, abscess after abscess formed, and in the early part of the winter I proposed to make exsection of the diseased joint, but could not get permission.

The same general treatment was persistently kept up and the sinuses syringed daily with diluted nitric acid, and also sol. mur. ammonia.

The boy was gradually running down, and in the spring it was quite apparent that he would ere long succumb from the constant drain on the system, and the parents finally consented to have an operation performed.

So on May 4th, with the assistance of Dr. H. M. Schuetzler, of Toledo, and Dr. N. Stubbs, of Stryker, Ohio, I removed the head and upper half of shaft of femur, following Prof Langenbeck's method for the operation. After removing the head and neck, then trochanter major and minor, we found that the femur was involved in its entire length, and removed the upper half. Amputation was now indicated, but as the patient was failing in strength, though he had lost but little blood, we did not dare to inflict any further shock, and concluded to postpone the operation.

I next gouged out the carious bone on ileum and acetabulum, dressed the wound in the usual manner, and placed his limb on a hammock of a double inclined plane of our own construction.

He recovered from the effect of chloroform in due time, and took stimulants and morphia.

Dr. W. Stubbs and I saw him next day, 9 o'clock, A. M., and found that he had fairly recovered from the shock, had some nausea, had taken short naps through the night, not much pain when quiet, wound looking well, pulse, 100, temperature, 98½°. May 6th, 9 o'clock, A. M., not much pain, eats some, pulse 115, temperature, 99½°. May 8th, 9 o'clock, A. M., sleeps good, eats, does not complain of much pain, pulse, 120, temperature, 99½°. May 11th, 9 o'clock, A. M., eats good, not much pain, pulse, 124, temperature, 102°. Bowels moved by enema. Wound discharges freely of healthy looking pus.

From this time on his general condition improved, and without any unpleasant symptom his pulse and temperature gradually becoming normal and the wound healed rapidly, until May 30th, he became feverish, had pain in knee and along the course of remaining portion of femur, and a large quantity of ichorous pus discharging.

These symptoms grew worse until June 2d, when I, with the assistance of Dr. N. Stubbs and Dr. Bennet, of Evansport, amputated the limb a little above the bifurcation of femoral artery. In order to save all the blood possible we applied Esmarch's bandage, whereby we controlled the hæmorrhage perfectly.

The amputation was made by the circular method, and the stump simply closed by a couple of strips of muslin brought over it and a bandage applied over them.

June 3d, 1 o'clock, P. M.; reaction is complete, slept some last night and this forenoon, though he took but one dose of morphia after operation, and declares that he feels good. Pulse, 112, temperature, 98½°. June 5th, 9 o'clock, A. M.; eats some, no pain, wound discharges reasonable quantity of healthy looking pus; pulse, 128, temperature, 99¼°. June 7th, 9 o'clock, A. M.; general condition good, appetite good. And thus the case progressed favorably from day to day, and on the 15th of Jund got off his bed alone and walked across the floor on crutches, and June 19th, when I saw him last, the stump had nearly healed, as also the sinuses that had existed before the operation, and to day, June 29th, it is completely healed up, and Johnny is gaining in flesh and general health.

Report upon Obstetrics.

A PAPER READ BEFORE THE DETROIT MEDICAL AND LIBRARY ASSOCIATION, BY DR. EDWARD W. JENKS.

The subject of my paper being assigned me and its length limited by the rules of this Association, it cannot be expected that I am able to give more than a very meagre report of what has been done in the obstetric world during the past year; nor shall I attempt to do more than merely allude to a few of the more practical points that have attracted attention, and which concern each of us engaged in the practice of obstetrics.

Of late the obstetric forceps, the indications for their use, the manner of using them, the kinds, and their value as compared with other obstetric procedures, have been freely discussed in medical societies and through the medical journals at home and abroad. The late Prof. Meigs made the statement that the forceps was not a pincer but an extractor. In a paper left unfinished by Prof. Hugh L. Hodge, completed by his son, and published in the *American Journal of Obstetrics*, May, 1875, exception is taken to this assertion of Meigs' as tending to restrict the practical uses of the forceps. The author claims that in narrowed pelves the fœtal head may be compressed by the forceps so as to deliver the child alive, and denies the assertion commonly made that the death of the fœtus occurring during labor is due to pressure on the brain; the brain of the fœtus is of no use, as seen in acephalous monsters, as children often survive after prolonged and severe pressure upon the cerebral mass, provided there is no rupture of tissues or an extravasation internally. If, however, the placental connections be severed for a period exceeding five minutes, the life of the fœtus is destroyed. This may be effected by various means. There can be no question that continuous pressure upon the head may produce extravasation, and safety to the child can better be insured by intermittent than continuous pressure upon body and head, and when the placenta is detached the only hope of the child's life is in speedy delivery.

As between version and forceps, this author gives his opinion decidedly in favor of forceps, holding that where the conjugate diameter is at least three inches, "delivery by suitable forceps is far more safe for the mother, and that the mortality for the child would be less."

Hodges further claims that the obstetric forceps, if well constructed, is the best extractor for dead children also, in case of craniotomy. The cephalotribe, which is a modified obstetric forceps introduced into practice by the younger Baudelocque, "should be considered the greatest improvement in operative midwifery since the seventeenth century."* Valuable statistics and practical deductions to obstetricians have been obtained from the reports of the Rotunda Lying-in Hospital, of Dublin. The annual report of the late Master, Dr. G. Johnson, as showing the forceps to be important conservators of life and health to mothers and children, has deservedly attracted much attention. Dr. Mann, in his 'Report on Obstetrics," in the *American Journal of Obstetrics*, for January, 1877, has summarized a portion of this report so admirably that I quote it at length. "He (Dr. Johnson) is able to show a very low death rate; fifteen in twelve hundred and thirty-six cases, only seven of them, or one-half per cent., being from strictly puerperal causes. This he attributes in great part, to the practice of interfering to prevent the labor being protracted, thus preventing the evil consequences arising from exhaustion and long continued pressure on the soft parts. The method of interfering was generally the *application of the forceps*, and this was done, not only in cases which would be ordinarily considered as proper for this operation, but in a large number of cases (forty-two) *where the os was only partially dilated*, but dilatable. This method of operating, entirely opposed, as it is, to the generally received teachings on the subject, deserve our careful attention, as being one of the most important advances which have been promulgated within the time of our report; true, it is not entirely new, but Dr. Johnson is the first to report a sufficient number of cases, and to give rules of proceedure to place the operation on a sound basis.

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*Mann, Report on Obstetrics for 1875-6. Amer. Jour. Obstet., Jan., 1877.

The degree of dilatation varied in his cases; assuming four inches as the degree of dilatation for the head to pass, in twenty-four cases it over two-fifths dilated; in twelve it was three-fifths, and in five, four-fifths. The condition which renders the interference advisable, are, first, early escape of the liquor amnii before dilatation of the os, thereby allowing the fœtal head to press injuriously upon the soft parts of the mother. Another condition is the descent of the head directly upon the cervix, without the intervention of the bag of water, the result being the same in both cases. In one case prolapse of the funis, and in another placenta prævia were considered conditions warranting the operation. The position of the head varied; in eleven instances it was above the brim; in seventeen in the brim, and in fourteen within the cavity of the pelvis.

Dr. J. has now operated in one hundred and thirteen cases and has never failed, thus certainly demonstrating that our old ideas as to the applicability of the forceps are destined to undergo a change. It probably will not soon become common practice to apply forceps in every case of labor• tedious in the first stage. Still, as Dr. McClintock remarks, it is a great consolation to know that when the head is high up in the brim and the os not fully dilated, should any emergency arise demanding immediate interference, we may have recourse to the forceps with probable safety to both mother and child."

In Playfair's admirable work on obstetrics, published in the United States during the past year, is a very careful discussion upon obstetric operations. This author is an advocate of the early and more frequent use of the forceps than is customary in Great Britain, and recommends their application even to the extent carried out by Dr. Johnson, in the Rotunda Hospital. With reference to the effects of early interference as to the life of the child he makes a forcible comparison between the general mortality of one out of every twenty or thirty children and the results obtained by Dr. Hamilton, of Falkirk, who used forceps on an average once in every seventh or eighth case, and delivered 731 successive children without a single still-birth.

At the last meetings of the Michigan State Medical Society and the Obstetric Section of the American Medical Association, the uses of the obstetric forceps were discussed; in the latter society the discussion was participated in by many who are acknowledged as authority on subjects pertaining to obstetrics and gynæcology. At neither society were there any important statistics of American obstetric practice exhibited, but individual experiences and views were presented, all tending to show the life conserving power of the obstetric forceps in skilled hands. Your reporter is convinced that among skillful American obstetricians the custom prevails of having recourse to the forceps fully as often, with the same conditions, as they have been used by the Dublin obstetrician and his followers; and his statistics are none the less valuable, inasmuch as they show the views of their compiler and at the same time reflect the opinions of the best obstetricians of our day.

As apropos to the subject of the use of forceps it may be well to add a word as to the kinds. Your reporter has long maintained that it matters but little what particular pattern of forceps the obstetrician uses if he has a sufficiently strong pair and is skilled in their use. This assertion, while believed to be true if taken in its broadest sense, may require a certain amount of qualification. It is, however, based upon the fact that most of the forceps now used are modifications of the Baudelocque instrument. I would exclude from the obstetricians' armamentarium the small, straight forceps that are of no use except to ornament the cases of our surgical instrument makers. Some of the smaller forceps having the pelvic curve may be serviceable when applied in the inferior strait, but seem to possess no mechanical advantage over the larger instruments.

Prof. Tarnier, of Paris, has lately invented a new obstetric forceps which has attracted considerable attention and criticism. He enumerates several defects in the common long forceps, as follows: 1st. That they never permit the operator to make traction to the axis of the pelvic canal. 2d. That they do not leave the fœtal head sufficient mobility to allow it to follow freely the curve of the pelvis. 3d. That they are not provided with any indicator to show the accoucheur in which direction he ought to make traction.

The forceps of Tarnier, of which the accompanying diagram* will give you some idea, seems to be a complicated instrument, and yet it is quite simple in construction. It consists of two parts; first, a pair of prehensile branches, which resemble ordinary forceps, except that the handles are curved backwards so that their extremity lies in the prolonged axis of the blades—that is to say, in precisely that axis of the pelvis in which traction ought to be made. These are not used for traction, but simply grasp the head, and are held together by a screw. The second part consists of two traction rods, which are articulated freely at a joint near the lower part of the fenestræ and in the axis of the blades. These are not crossed but parallel; they have the same curve as the prehensile branches, lie close beside them when in position for traction, and end in a strong transverse handle, which gives a powerful hold to the hands. Each traction rod is introduced, together with the corresponding prehensile branch, and the adjustment is said to be as easy as with the ordinary forceps.

Prof. Tarnier claims for this instrument in contradistinction to the ordinary forceps, the following qualities: 1st. That it permits the operator always to make traction in the axis of the pelvic canal. 2d. That it leaves the fœtal head mobility enough to allow it to follow freely the curve of the pelvis. And 3d. That it provides an indicator which shows the accoucheur the precise direction in which at any moment he ought to make his traction. This instrument can only be conveniently applied with the woman in the dorsal position, and therefore does not meet with very favorable opinions by the leading British obstetricians.

Prof. Pajot has severely criticised the instrument in the *Anales de Gynécologie* for March, and Prof. Tarnier replied in the April number of the same journal, giving a better description of the mechanism of the instrument, and the manner of its use and advantages over other instruments than in his first memoir. "The Obstetrical Journal of Great Britain and Ireland" says that as regards its shape we think that this form of forceps is well worthy of the attention of British obstetricians. Your reporter is of the opinion that the name of the distinguished inventor of itself entitles the forceps to consideration aside from their intrinsic merit; and further that their trial by a number of obstetricians will be quite liable to prove much that is claimed for them when they are applied to the fœtal head within or above the pelvic brim.

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*In Annales de Gynécologie, March, 1877.

At the meeting of the American Gynecological Society held in Boston, in June last, Dr. Skene read a valuable paper upon "The Principles of Gynecological Surgery Applied to Obstetric Operations," in which he called attention to the facility with which craniotomy could be performed by the aid of Sims' speculum; also to the aid afforded by means of the speculum in applying Dr. Thomas' method of treating prolapsus of the funis. A case was related in which the cord was pushed back by means of sponges, held in long holders through the speculum, and with greater ease and better results than when the cord was reduced in the manner recommended and ordinarily employed. He suggested the use of the same means in the treatment of arm presentation, pushing the presenting part back by means of the sponges through the speculum. Reference was made to cases where Barnes' dilators were introduced through the speculum with greater facility than could be done otherwise. The doctor also mentioned what he had previously stated of the advantages of the speculum in introduction of the tampon and in removing the ovum in retarded abortion. Your reporter for several years has made use of the speculum for the purpose of introducing the tampon and for removing the ovum in retarded abortion by means of an ovum forceps or scoop, and fully agrees with Dr. Skene in the advantage of the practice he advocates over the older methods.

In the discussion which followed the reading of this paper

Dr. Lusk remarked that when the cephalotribe was used it was preceded by perforation, and when the cranioclast was used it was necessary to disarticulate the bones of the head before the instrument was applied, and in both of these operations he could understand how the suggestion made by Dr. Skene would be of value.

In cases of deformed pelvis the old practice of exvisceration, amputation, or long continued intra-uterine manipulation of any kind is attended with so much risk to the life of the mother that leading obstetricians seem to favor a revival of the old operations of Cæasrean section, and *gatsro-elytrotomy* in many cases, with a probability of saving fœtal life in some instances, and attended with no greater, but even less danger to the mother. That these latter operations should not be performed where cephalotripsy or cranioclasm can be easily done is a matter of question, but in mal-presentations the long and sometimes fruitless attempts at version where mutilation of the child becomes necessary, especially in a narrowed pelvis, the danger to the woman's life is fully as great in many instances as from *gastro-elytrotomy* or even the Cæsarean section.

Your reporter has recently had a successful case of Cæsarean section in consultation with Drs. Flintermann and Torrey, where the woman made as good a recovery as could be asked for, with no more apparent trouble after the first twenty-four hours succeeding delivery, than attends the easiest of child-births. The details of this case he does not desire to repeat in this connection, as they will be given fully elsewhere, simply adding that the occasion of the operation was a deformed pelvis, the conjugate diameter of the superior strait being but two inches, the presentation of the fœtus was the right shoulder; version proved to be impossible or any other intra-vaginal obstetric operation for the delivery of the child, owing to the angularities of the parturient canal and want of room produced by the narrowing at the brim of the pelvis. *Gastro-elytrotomy* might have been performed in this case, but it was thought best, owing to the mal-position of the child and the many days she had been in labor, to make Cæsarean section, with but little expectation of her recovery. The writer attributes the woman's recovery, in a great measure, to the absence of intra-uterine manipulation preceding the operation.

The operation of *gastro-elytrotomy* has been revived by Dr. Thomas, who was not successful in his first case in saving the life of the mother, but delivered the child alive. Dr. Skene has been successful in two cases, the last one very recently, in saving both mother and children. Dr. Thomas' patient was moribund. It is too frequently the case such an operation as this or the Cæsarean section is not proposed until the woman is exhausted by long continued labor and the previous attempts at delivery.

Gastro-elytrotomy is so new a procedure that statistics concerning it are exceedingly limited, but theoretically it is a simple operation and promises far more in its results than the Cæsarean section or even cephalotripsy. It consists in making an incision just above and parallel with Poupart's ligament from the symphysis pubis to the anterior superior spine of the ilium, holding back the peritoneum as in the operation for ligature of the iliac arteries, opening the vagina at its junction with the cervix, and extracting the child by version.

The uses of anæsthetics in parturition is as yet a somewhat unsettled question. There is no question about their advantages in the more serious obstetric operations, but only with reference to their use in the simpler forms of labor are their any differences of opinion. There have not been many important papers published during the past year by either American or British obstetricians, but in the French medical societies there has been considerable discussion, which has been summarized in the medical journals of Paris. In the *Revue des Sciences Médicale* for April, 1877, is a brief synopsis entitled "*De l'emploi des Anesthésiques dans les Accouchments*, par Blot, (*Soc. de Chir.*, p. 691, 1876.) of which the following is a translation: "One does not know how to say enough against the baneful employment of anæsthetics in obstetrics, and it is important to establish rules for its indications. M. Blot reports the case of a primipara in which the intolerable neuralgic pains and the retraction of the cervix uteri under the influence of these pains, yielded to an incomplete anæsthesia from chloroform. He cites another case where the extreme violence of these pains had interrupted labor, and where chloroform permitted the accouchment to terminate rapidly.

Polaillon admits, with Blot, that anæsthesia is rarely indicated; thus with eighteen women he has tried rectal injections of hydrate of chloral, and has observed that in the great majority of cases labor was prolonged; the head rested upon the vulva, the child was in danger, and it was necessary to terminate labor by the forceps. Lucas, Championière, Polaillon, and Perrin remarked that an incomplete anæsthesia is sufficient, and may be produced by a few drops of chloroform, in order to diminish the pain, stop the spasmodic condition and rapidly terminate labor. It seems, then, that chloroform acts as an antispasmodic and not as an anæsthetic; an essential difference which separates obstetrical anæsthesia from surgical. anæsthesia. In the first the remedy acts upon the genital organs and calms the pains without disturbing the sensibility or intelligence; in the latter the suppression of sensibility arrives.only in the second period, and is generally preceded by the abolition of intelligence."

At the last meeting of the American Gynecological Society Dr. Lusk, of New York, read a valuable and instructive paper entitled, "On the Necessity of Caution in the Employment of Chloroform during Labor,*" and submitted the following propositions: 1. Deep anæsthesia carried to a point of complete abolition of consciousness, retards and sometimes suspends uterine action. It was that fact that made it so valuable in many cases, but safety required that the patient should come partially from under the influence before complete delivery was effected in order to avoid hæmorrhage.

2. Chloroform, even when given in the usual obstetric fashion, might, in exceptional cases, so far weaken uterine action as to create the necessity for ergot and the forceps.

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*Vide Amer. Jour. of Obstet. for July, 1877.

3. Patients in labor do not enjoy any absolute immunity from the deleterious effects of chloroform. Cases were related.

4. Chloroform should not be given in the third stage of labor. Cerebral anæmia, from any cause, enhances the risk of anæsthesia.

5. The more remote influence of large doses of chloroform during labor upon the puerperal state is a subject which calls for future investigation and inquiry.

In the discussion which followed the reading of this paper Dr. Wilson, of Baltimore, remarked that the cases of death from chloroform in labor related by Dr. Lusk were the first of which he had heard. He always felt the most perfect confidence in the agent. He had used it 28 years and administered it between two and three thousand times without a single case of post partum hæmorrhage or the slightest ill effects following or attending its administration.

Dr. Albert Smith, of Philadelphia, regarded the paper as one of great interest and fully endorsed all the apprehensions expressed by Dr. Lusk regarding the use of chloroform in ordinary obstetric practice. In his own practice he employed Squibbs' ether, believing that it possessed all the advantages of chloroform and could be used with absolute safety. He employed it in ordinary cases. Yet there were cases in which a rapid and perfect loss of consciousness was desired, and under such circumstances advantage might be derived from the use of chloroform. For example, in hæmorrhagic abortion where an absolutely relaxed condition was desirable for the purpose of giving the opportunity to carry the finger instantly to the fundus of the uterus for the removal of the ovum; in such cases he always used chloroform, because for the short time the patient was under its influence, as a rule, rendered it safe."

The writer has long since decided as to his own rules of practice regarding the use of anæsthetics in obstetrics. 1st. That they may be given to the extent of producing partial loss of consciousness in any stage of labor without doing harm. 2. That complete anæsthesia, except in convulsions and the more important and painful obstetric operations, is to be avoided, as it lessens the contractile power of the uterine and abdominal muscles and thus protracts labor. 3. Even in convulsions, if there is much venosity of the surface or imperfect respiration, anæsthetics, particularly chloroform, must be used with extreme caution. 4. Complete anæsthesia very markedly protracts the third stage of labor, and renders the woman more liable to post partum hæmorrhage. 5. Chloroform is preferable to ether, except when profound anæsthesia is required for a protracted period.

The use of "*Hydrate of Chloral in Obstetric Practice,*" is the title of a very excellent paper in the Gynecological Transactions,* by Dr. Richardson, of Boston. It seems to be well established that this drug is a valuable acquisition to our list of remedies for certain complications and morbid conditions incident to child-birth. Dr. Richardson gives a report of clinical cases in the paper in support of his views. He recommends chloral in the vomiting of pregnancy, grs. xv, a quarter of an hour before meals, or if not tolerated, grs. xxx per rectum at first, and then by the mouth subsequently. In after pains sometimes combined with ergot. As an anæsthetic during labor for the relief of short sharp pain. In puerperal convulsions this author recommends the combination of chloral with bromide of potassium. For the *insomnia* which not unfrequently follows tedious and exhausting labors "chloral in thirty grain doses will be followed by the greatest possible benefit." He does not look upon it as a perfectly satisfactory anæsthetic agent, but "as a valuable remedy for the relief of those affections of the nervous system which so frequently occur in obstetric practice, it seems fairly to deserve to be more widely known among the medical profession than it is at present."

Your reporter is able to corroborate, in the main, from his own clinical experience, the opinion of Dr. Richardson concerning the value of chloral in obstetric practice, more particularly as to its great service in lessening the intensity and aggravating character of pain in the first stage of labor; for the sleeplessness which often follows tedious and exhausting labors, and in threatened as well as existing puerperal mania. Experience of its use in puerperal convulsions has been so very satisfactory that he can speak even more positively than Dr. Richardson as to its great value. The manner of administration in convulsions has usually been from thirty to sixty grains in solution per rectum without the combination of bromide of potassium, and repeated every hour as long as required. The use of chloral subcutaneously is apt to produce suppuration. Nor can he conscientiously speak with any degree of favor of its injection directly into the veins, as recommended and practiced by some French physicians. It can be introduced into the system safely only by the mouth or by the rectum.

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*Op. Cit., p. 248.

The causes, prophylaxis and treatment of puerperal diseases have found a prominent place in recent obstetric literature, to such an extent that they can scarcely be alluded to in this report, as it has already exceeded the time allowed under the rules. The readers of medical journals are doubtless familiar with the important discussions which have recently occurred in the London Obstetrical Society upon the subject of puerperal fever. Dr. Fordyce Barker, of New York, in the discussion of July, 1875, stood almost alone in the society in defence of the theory that puerperal fever is a distinct and specific fever attacking puerperal women only. Many who had heretofore held similar views seem to be more inclined to the opinion expressed by Dr. Priestly, that puerperal fever is simply a blood poisoning, a septicæmia such as is observed in other than puerperal patients, modified, perhaps, by the peculiarities of the system in a puerperal state, but still not constituting a separate pathological genus, as the origin of the poisons is either autogenetic in the patient's own system or heterogenetic, imported from without, the auto-infection or hetero-infection of Schrœder. In the first the poison is disorganization, or death of tissue—as a piece of placenta, dicdua or blood clot retained, or some laceration in the parturient canal may be either the seat of decomposition or absorption. As to the hetero-infective form of puerperal fever the question arises, whence comes this poison?

Of the contagiousness of puerperal fever there can at this day be no question, but if we class the two former mentioned under the one head of puerperal fever, we may with propriety ask if the auto-genetic and hetero-genetic are equally contagious? In the preface to the voluminous work of Hervieux[1] occurs the following: *Un mot, un seul mot, avait suffi pour dissiper toutes les obscurités qui enveloppaient cette question si ténébreuse et en apparence si complexe des épidémies puerpérales. Ce mot est*: POISON *Il y a un poison puerpéral, donc il y a un empoisonnement puerpéral.*[2]

Among recent authors opposed to the doctrine of a specific poison giving rise to puerperal fever is Winckel, whose work on CHILD-BED, translated by Dr. Chadwick and published in this country, is deserving of careful study.

At the last meeting of the Michigan State Medical Society, Dr. Wade, of Holly, read a carefully prepared and ingenious paper upon Puerperal Bacteræmia, in which he claimed, as well as I can remember, that bacteria were the chief factors of all forms of puerperal diseases. This is a question which must remain unsettled until the part of bacteria in the production of any kind of disease is better understood.

There are some problems still unsolved concerning the pathogenesis of puerperal diseases, which have been merely alluded to. Your reporter confesses that he is quite disinclined to leave thus abruptly this great and important subject of puerperal diseases without further discussion of some of the questions which have arisen and been ably discussed in the obstetric world during the past year or two. The subject seems almost exhaustless, and yet is fraught with the deepest interest. Of greater importance, however, than the pathology of puerperal diseases, or even their treatment, is their prophylaxis; this should be the end and aim of all our inquiries. Our duty as obstetricians is to guard our patients by every means in our power (which I cannot now discuss) against the noxious influence of poisons from within and from without, whether septicæmic or the product of contagion.

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[1] Hervieux Traité Clinique et Pratique des Maladies Puerpérales Suites de Couches, Paris, 1870

[2] A word, a single word, should suffice to dissipate all the obscurity which envelopes this dark and apparently complex question of puerperal epidemics. This word is *poison*. There is a puerperal poison, therefore there is a puerperal poisoning.

Abstracts from Virchow's Archives.

PREPARED FOR THE DETROIT MEDICAL JOURNAL BY H. P. V. PETERSHAUSEN, A.M., M.D., PH. D.

VIII.—*On Sarcoma of the Lymphatic Glands.* (*Dr. Raissa Putiata, of Moscow, Vol. 69, Feb. 1875.*)

Not long ago two different affections were termed "Lymphosarcomata," though they differ widely in their anatomical character. They are: 1. The sarcoma proper of the lymphatic glands, in which the tissue assumes the character of embryonic connective tissue while the normal lymph-corpuscles lose their normal type, and 2. The lymphoma, a simply hyperplastic growth of the glands, sometimes limited to their reticulum, sometimes affecting the lymph-corpuscles. This form is known as lymphosarcoma.

The sarcoma proper is a very rare affection, of which the author was happy enough to observe several cases. In one of them the tumor developed from the walls of the blood vessels of the gland, in addition to which, during the later stages, there followed a new growth of connective tissue terminating in an alveolar carcinomatous formation. The primary diseased glands were situated in the left axilla. The first changes noticed consist in a hyperplasia of the lymph corpuscles whose form and size were still remaining. The blood vessels became dilated and their walls hypertrophied. Next, the cells enlarged, became rich in protoplasm, changed their form to a polyedric one, and increased the number of their nuclei. The reticulum decays then and the connection between the single cells gets very loose. The lymph corpuscles have then all disappeared.

The peculiarity of this tumor is that its cells appear as adventitial cells of the vessels. Similar tumors were found by others in the pia mater (Waldeyer's plexiform angiosarcoma).

In one place the tissue of the tumor resembles pretty much carcinomatous tissue.

This affection appears to have been a very malignant one, as death followed about eighteen months after the tumor was first observed in the axilla, which had also caused metastases in the lungs, liver, ovaries and peritoneum.

The author found in another case the reticulum of the gland to be wide mashed, the cells enlarged and polyedric. These changes were noticed in the middle (medullary) part of the lymph-follicles to the hilus. Somewhat later central fissures appear in the medullary part which afterwards become connected with those peripheral lymphatics of the capsula which remained intact. Therefore, those fissures must be considered as lymphatics, as their contents consist of lymph-corpuscles. A further change of the elements of the tumor is that into connective tissue.

In case of secondary sarcoma in the lymph glands the author found that its development is similar to that of secondary carcinoma. He examined only the melanotic sarcoma of the inguinal glands for this statement.

IX.—*A Case of Mixed Osteoid Enchondroma of the Lung. (Dr. A. Lesser, in Berlin, Vol. 69, March, 1877.)*

The author found a tumor about five inches long and from one to two inches broad, in the lower lobe of the left lung of an old woman who died 78 years old. It was lobulated, some of its lobes had only a loose connection by connective tissue with the main part. Those parts of the tumor which were of a light yellow color had a consistence of cartilage, while the more honey colored parts had a bony consistence. The tumor had a connective tissue capsule, and around it there was a broad layer of compressed lung tissue. The bronchial glands were in an inflamed state.

By the microscopical examination it was made probable that the peribronchial tissue was the matrix of the tumor. In different portions of this there were found between *amyloid* masses, hyaline cartilage, fibrous cartilage, osteoid tissue, bony substance, marrow, and medullary substance. The author did not decide, if the degeneration in the tumor was produced in loco, or if it had any relation to syphilis, of which traces were found in the vagina and liver.

X.—*On Hydræmia and Hydræmic Œdema. (Drs. J. Cohnheim and L. Lichtheim, in Breslau. Vol. 69, Jan.* 1877.)

About half a century ago R. Bright gave a new explanation of the, at that time, already known frequent coincidence between hydrops and albuminuria, as he recognised the appearance of albumen in the urine to be the symptom of a disease of the kidneys, while he considered the œdema to be the sequence of the reduction of the albumen in the blood (hydræmia).

Meanwhile, many modifications have taken place in these teachings. It became known that hydrops is not always the sequence of a kidney affection, but nobody did doubt that hydræmia really causes œdema.

Still, a number of facts could not be explained by this theory. There may be observed post scarlatina a high degree of œdema, while there is in this affection only a scanty excretion of urine, although the latter may contain a great quantity of albumen.

Moreover, we find those kidney affections in which greater quantities of albumen are excreted to be seldom combined with œdema. Besides there was observed that solutions of chloride of soda do not produce œdema when lead through localized parts of the circulatory system.

Therefore, hydræmia could no longer account for hydræmic œdema, and hydræmic plethora was now called to assistance. Barthels took part with this view (in Ziemssen Pathol. and Therap. Vol. IX, 1). But the opposite point of view may be defended with the same success.

The authors made a series of experiments to obtain a more thorough knowledge of the relations alluded to. They did not arrive at any definite results, but think that the phenomena in question may be explained as follows:

Hydræmic œdema can be caused directly by changes taking place in the walls of the vessels, especially in those of the skin. Adopting this view it will be plausible why, in spite of a serious hydræmic plethora, there is caused no œdema. This may be called forth only when the functions of the walls of the vessels are changed. Among the other causes that favor œdema there may be mentioned, venous engorgement of a low degree depending upon the influence of gravity upon circulation, and changing congestions of certain districts of vessels depending upon the action of the vaso-motors.

The connection between alterations of the vessels of the skin and hydræmic œdema seems to be more evident in case of scarlatina. Here is an affection of the skin with consecutive desquamation, to which is often added disease of the kidneys. The skin affection alone does not account for the œdema of the subcutaneous tissue, but it comes on quickly, when under the influence of a disease of the kidneys there is disturbed the excretion of urine and hydræmic plethora is called forth.

Combustions of the skin and artificial suppression of its functions, followed by albuminuria, do further prove that there is a certain relation between disease of the skin and the kidneys. It would be more difficult to find similar relations for the simple hydræmic œdema of phthisic, carcinomatous and other cachectic individuals. But in their cases, as well as in certain chronic diseases, a long continued hydræmia may at last injure the walls of the vessels themselves so that their normal functions are interfered with.

XI.—*On Metastases of Tumors.* (*Drs. J. Cohnheim and H. Maas, of Breslau. Vol.* 70, *June,* 1877.)

During the last twenty years it has often been described how a malignant tumor penetrates a vein, grows within its walls, and how such a thrombosis is followed by emboli in the capillary part of the circulatory system. Therefore, there will be found at present scarcely anybody who does not recognize the described mode as one of the means after which carcinomatous tumors may be transposed. Taking this for a fact, there arises the question why a tumor grows from the embolus corresponding with the structure and cellular elements of the latter. This can be explained in two different ways. The cells of the carcinomatous embolus itself may produce the elements of the metastatic nodule, or they may infect the elements of the organ with which they come into contact. In the latter case a proliferation would be caused in the adjacent tissues whose product does not equal the matrix from which they arise, but the infecting agent.

Though the latter hypothesis is taken for granted at present, the authors think that it is not sufficiently supported by facts, and consider the microscopical specimens exhibited for its verification as deceiving images.

But the first mentioned hypothesis—self depending proliferation of emboli—is likewise not proven. The authors thought that this was best done by bringing live tissue into the vessels and see if it proliferates there, in which case the penetration of the walls of vessels and the farther growths outside the vessel might be easily explained. They did not try to bring pieces of fresh sarcomatous carcinomata into vessels, as all former trials to inoculate carcinomata had no success. The introduction of periost seemed to promise a better result, as it is known that it will grow if separated from its connections. Experiments were made with rabbits, dogs and chickens. The latter were best suited for the purpose. The birds were killed between the third and twenty-seventh day after the periost was brought into their jugular veins. All emboli which were found appeared as solid cylinders. Those which had been introduced over fifteen and less than twenty days were ossified. There could be found, similar as in the common thrombus, new vessels growing into the embolus, from which the place and extension of the ossification was dependent.

Based upon these facts we may now assume without hesitation that an carcinomatous embolus will grow and enlarge from itself in a similar manner, but there is no reason to believe that the wall of the vessel takes part in the growths in any other way than by the formation of new vessels from their vasa vasorum.

Those emboli which had been present in place over twenty-two days became gradually absorbed, and after the lapse of a month, hardly any traces could be found of them. This is about the same result which follows if the periost had been transplanted into subcutaneous tissue. We meet here the power of the physiological organism to carry off by virtue of its vital force all that cannot be made useful for it. In case this force should be weakened there would arise danger that transposed parts will proliferate, and others become the center of stationary nodules. Not the tumor, as such, is malignant, but becomes so when the vital force of an individuum is *reduced below its physiological standard.* As long as it is normal, the transposed elements will simply be destroyed in case of so called benign tumors—little tumors in the mammæ, nervi, nodules in the subcutaneous tissue which had remained in place for years, with every sign of a benign tumor, commence suddenly to grow and generalize, as is observed by many surgeons. The author thinks that only a change in the constitution of the patient accounts for these facts, and they explain by their hypothesis, likewise, those strange cases in which only one kind of tissue or system becomes the seat of metastases (cancer in bone), as only there are found favorable conditions for the further development of such semina.

XII.—*On Spastic Paralysis of the Spinal Chord. (Dr. Wilh. Erb, in Heidelberg. Vol.* 70, *June and July,* 1877).

Two years ago the author published a complex of symptoms relating to disease of the spinal marrow, which he considered as being of a peculiar character. He separated, therefore, this form of disease from others of the group of affections of the spinal marrow. The first observations of symptoms belonging to the disease in question, were made by Tuerk, of Vienna, in 1856. Several years afterwards Charcot, of Paris, published some cases of sclerosis of the lateral columns, of which a few were combined with progressive muscular atrophy. Other authors did publish then similar cases. But in all instances it was a matter of question if the symptoms described were really dependent upon lateral sclerosis or not, as hardly any post mortems were made till now. The author characterizes the disease, after having observed a considerable number of cases.

In one-half of his cases he finds the disease beginning with rheumatoid pain in the region of the sacrum and in the legs. In different places of the skin there was observed a burning pain or a sensation of cold, and sometimes formication. Motoric disturbances were constantly found, and are described as a weakness and tiredness in certain muscular regions, which hinders the patient to try a long walk, and which at last leads to paresis. Several times the paresis befell first the one leg and then the arm of the same side before attacking the other leg. Then a certain stiffness in the extremities, or spontaneous twitchings in them, or tonic spasms in certain muscles become observed. There is also noted clonic trembling in the leg when only the toes are put upon the floor while sitting.

In case the disease is developed, different degrees of pareses and paralyses will be found. But there is *no trace of ataxia, no tremor* upon voluntary movements, as in multible sclerosis. Most common is the paraplegic form of paralysis, more seldom the hemiplegic one. Contractions of the extremities are not frequently met with. Spontaneous contractions of muscles are observed in lesser degrees, tonic contractions in higher degrees of the disease. Besides these occur tetanic stretchings of the legs and sometimes clonic tremor in both legs.

The walk of the patients is unsteady; their feet seem to be drawn on the ground, and they are apt to stumble. In some cases a jumping movement of the body is observed at each step.

Another principal symptom is the increasement of the reflexes of tendons. An increased reflex of the tendon Achilles, of the biceps femoris and of the triceps above the olecranon are most frequently seen.

The sensibility is not disturbed, the skin reflexes are normal, and neither atrophy of the muscles nor functional diseases of the bladder do occur. There is further no decubitus and no disturbance of the cerebral functions to detect. In general the disease takes only a gradual progress. The true causes of the disease are still unknown.

Though it may perform a high percentage of diseases peculiar to the spinal marrow, the predisposition to it is not often met with.

As to diagnosis, the following diseases may come into consideration: *Myelitis transversa chronica*, in which, besides motoric paralysis, there is found sensible paralysis, weakness of bladder and decubitus. The disease *does not* progress upwards. The skin reflexes may be high graded. *Tabes dorsalis* is easily recognized. Lancinating pain, sensible disturbances anæsthesia of muscular sense, disturbances in the functions of certain cranial nerves, unsteady walk when the eyes are closed, ataxia, weakness of bladder and sexual functions and the want of proper paresis and paralysis and of tendon reflexes do characterise it.

Though true cases of tabes cannot be mistaken for spastic paralysis, there are sometimes complicated cases met with. In these we may have a combination of sclerosis of the posterior columns with that of the lateral columns, especially in the later cases of tabes. *Poliomyelitis anterior chronica* is soon followed by high graded atrophy. Besides the sensibility towards the Faradaic current decreases in this affection. *Multiple sclerosis* appears often in the motoric part of the spinal marrow, and may then show the topical signs of spastic paralysis. Only the appearance of other symptoms will cause the observer to think of another disease. Among such are sensible disturbances, muscular atrophia, ataxia, tremor, disturbances of speech, nystagmas. In case that any complications follow spastic paralysis, there must be doubted that an exact diagnosis of the latter was made.

From paralysis by lesions of the *cauda equina* the spastic paralysis may be recognized by its tendon reflexes. Its progression from the lower to the upper extremities and the want of cerebral phenomena will difference it sufficiently from *cerebral hemiplegia.*

The prognosis does not much differ from that for other forms of chronic paralysis of the spinal marrow, but it seems to be the most favorable form of them, and allows a relatively long period of life. It may be cured, or at least improved.

The author found that his patients were most benefitted by the application of a galvanic current. He applied it directly along the spine, and every two or three days to the leg. Next to this the systematic and careful use of water may be of service.

Argentum nitricum can be given internally, potass. iod., and arsen. could likewise be tried, but strychnine should be given under no circumstance, as it would further increase reflex actions.

That the patient's mode of life must be regulated is self evident.

Correspondence.

Relations of the Medical Profession to the People.

EDITORS OF DETROIT MEDICAL JOURNAL.—Herewith please find letter from Dr. Northrop, giving probable cause of a case of puerperal septic fever, and also its brief history and statement of termination. The letter is one of several received in reply to question as to connection of case of puerperal fever with one of erysipelas, both diseases having been reported as existing in same locality during the same week. It may be remarked in passing, that, so far as they go, these letters do not show such connection of these two diseases, as is frequently suggested in our medical journals, but seem to show that in the cases reported the disease was due to septic poison connected with decomposition of blood, etc. The main reason, however, why I offer this letter for publication, is because it illustrates some other points which I think should be of general interest to the profession. It is proper to state that the letter was not written with a view to its publication, but the writer has kindly consented to let me use it. The letter s as follows :

MARQUETTE, Mich., March 23d, 1877.

HENRY B. BAKER, M.D., *Sec'y State Board of Health:*

DEAR SIR.—In reply to your letter of the 13th inst., regarding erysipelas and puerperal fever, reported by me on the 3d inst., I have to state that, on the morning of Feb. 25th, I found a little patient who had suppurative inflammation of the ear with facial erysipelas, commencing with the diseased ear, which was limited to the affected side of the face, and the child recovered in about a week.

We have had erysipelas this winter, although I had not met it before since in December, as reported, and I would therefore ask to have my report of February 17th corrected; for although there was a severe case here during that and the succeeding week, I did not see it at any time, neither did the physician in charge see my puerperal patient, nor was there any intercourse between the two families, who live in opposite sides of the town.

Early in last December I was called to see Mrs. ———, aged 27, of nervous temperament, about five months pregnant with her fifth child, and found her in poor health. She had been in other hands up to this time. The pregnancy so far had been one of great suffering, severe pain, persistent vomiting, with marked anæmia, loss of appetite and rest, and failing in strength daily.

I made use of an abdominal bandage, and bromide of ammonium with entire relief of the pain and vomiting, and secured continuous rest for the night. Then followed tonics, with returning appetite and strength, and for about two months there was a season of comparative comfort, in which the patient was able to ride out, and walk to the neighbors', one and two blocks away.

After this, for a month, the patient suffered with suppression of the urine, with daily increasing evidence of uræmic poisoning, with disturbance of vision and fainting, increased anæmia, hydræmia and general anasarca.

The same [illegible] [illegible] in her [illegible] pregnancy. The urine was [illegible] [illegible] Then [illegible] [illegible] gastric irritation from this time, with frequent vomiting, and no inclination to make use of either food or medicine.

I used diuretics, diaphoretics, hydragogue cathartics, and hot air baths, all without benefit, and had advised the production of premature labor, fearing that the mother's life would be sacrificed by continuing the gestation, when nature, fortunately, began the work on February 21st. I was called, and found the pains regular, and ordered the frequent use of copious hot water douches to the cervix. The case progressed regularly until 3 P. M., of the 25th, when the membranes ruptured and the pains increased.

Continued severe, expulsive pains began at 9 P. M., and a fine, healthy boy was delivered at 10.30 P. M.

The secundines came away in twenty minutes. The labor was not attended with hæmorrhage, and the subsequent flowing was only as usual.

It could not be called a severe labor, although the first stage was so prolonged, and was completed without other aid or interference than the douche for two days. The mother was greatly prostrated, but rallied fairly by the next day. The kidneys had their function fully restored at once, and one quart of urine was passed within twenty-four hours of labor, showing that the suppression was due to pressure upon the renal circulation, as had been expected; and although I was anxious about her recovery, I felt greatly encouraged during the three succeeding days that I saw her after the completion of the delivery.

I was requested to discontinue my visits on the 28th, as the nurse assured them she would have the patient about in ten days if she could only be allowed to have her own way.

I was sent for on the evening of March 5th, and found that on March 1st, the day after my last visit, that there was a putrid coagula passed, with a chill and fever the same day. There had been frequent chilly sensations since, and fever daily, the lochia had become less and less in quantity and more and more offensive. The atmosphere was sickening to me, no attempt at ventilation, and neglect to use vaginal injections, as ordered the day after confinement.

Inadequate nourishment had been used, and now there was vomiting of everything taken, with intense headache. There had also been a failure to use nutritious enemas, as I had directed, and the nurse had had her own way.

I found the pulse at 120, respirations 48, and the temperature 103°; urine normal, bowels confined and tympanitic, no pain or tenderness or other evidence of metritis or peritonitis.

On the next day there was another chill, the pulse went up to 150, temperature and respiration unchanged.

My diagnosis was puerperal septicæmia, or puerperal septic fever, and prescribed accordingly. The treatment proved of no account, as the patient continued to sink daily, and died on the evening of March 8th, eleven days after her confinement, and eight days after the first change was noticed.

I can see no connection between the two cases in support of the infectious or contagious theory, which I accept in full, and always feel anxious, when I have to care for erysipelas with obstetric cases, as I have had to do heretofore, and always without any trouble.

I have given you an extended history of the cases, that you might judge for yourself how far they were dependent upon each other, hoping you may frankly give me your own conclusions.

Respectfully yours,
GEORGE J. NORTHROP.

I do not know what ideas may arise in the minds of others on reading this letter of Dr. Northrop's, but it seems to me to suggest several which ought, in some way, to be useful to humanity:

1. It suggests, as has many times been done, the immediate production of septic material as one source of puerperal disease. 2. That the in [illegible] much toward preventing, if he cann [illegible] or the serious effects of suc [illegible] *physician is secur* [illegible] people have no [illegible] ciate the need [illegible] such or simila [illegible]

At a time of more than usual peril this case was withdrawn from the care of an intelligent physician and placed under the care of a woman who probably was not, to say the least, familiar with what has somewhat recently been learned by the medical profession. The patient died. It seems to me that this is a coincidence of a kind that is altogether more common than it ought to be; and that the medical profession is able to do much to remedy this condition of things if its members only choose to do so. Why cannot the profession plan and carry out a general organized system of work which will tend to improve the relations between the people and the profession? Why should the medical sciences, of all others, remain confined to the profession, "hid under a bushel?" Investigators in all other sciences recognize the importance of "popularizing" their results, in order to sufficiently interest the people that they will patronize them. No science can receive much aid, or make much progress, except this be done. It seems to me plain that the reason why so large a number in all our communities seem to prefer to patronize quacks, is because the quack is about the only one who takes any trouble to "popularize" knowledge (?) respecting the cure of disease. I believe in "preventive hygiene," and in "public sanitation," but I also believe in "preventive medicine," and for this we have, under existing conditions, little or no provision. Under existing relations, or want of proper relations, between the most advanced and conscientious members of the medical profession and the common people, the noblest and best work of these physicians is seldom called for or allowed to be performed; and when it is performed it is seldom paid for. That skillful guidance past real dangers which only physicians now appreciate is comparatively seldom except among the most intelligent of the people who have, in some way, gained a more than usually clear idea of the value of the skilled physician when laboring to *prevent* evils.

We have a State Board of Health that does what it can to advance public health, but for "preventive medicine," properly so called, and certainly for anything connected with the "cure" of disease, we must look to the medical profession. When it comes to the administration of "medicine," for prevention or cure, a doctor is needed, and there is certainly some way in which the masses can be made to have some appreciation of the difference between a rational, scientific physician and an ignorant "Chinese doctor," "Indian doctor," or other such impostor.

I believe the profession can do much, for itself and for humanity, by encouraging the free and general publication of such articles, by physicians, as will tend to give people an idea of the rapid progress of knowledge in the various medical sciences. Why shall not our local and larger medical associations ask their members to prepare and read before them papers giving an account of the present condition of our knowledge of anatomy, of physiology, medical chemistry, etiology, pathology, of the materials of medicine, and of the action of remedies? And when these papers are well written, in terms not too technical, why not pass a resolution requesting copies for publication, request some local paper to publish, or permit a committee to make such arrangements for general publication as may best be made. Why not follow this up from time to time with articles on recent progress in each and all of the medical sciences? Much can be conveyed, even though some technical terms have to be employed. The people find it possible to master many technical terms in law, and in the other sciences; there is no reason why they may not in the medical sciences. The more such authorized and vouched for articles are read by the people, the more they will be instructed, and the less inclined to patronize ignorant quacks and gross impostors. In my opinion there is no other way in which it is possible to get the people properly to support and maintain rational medicine, up to present standards —much less support that "advanced standard of medical education" of which we have heard so much, but which seems so difficult to inaugurate.

The American Medical Association and our State and local societies permit reports of discussions and resolutions to go into the daily papers, frequently in a way that leads to anything but respect for the profession, chiefly, perhaps, through imperfect representation of the facts. Why not have some systematic and intelligent effort in and by such societies whereby what the people receive shall be such as will be *of use to them*, and such as will cause them to have a higher respect for those societies and for the profession as a whole?

Very respectfully,
HENRY B. BAKER.

LANSING, August 2, 1877.

Reports of Societies.

Calhoun County Medical Association.

The Society met agreably to call of Secretary, June 26th, at two P. M., in Fireman's Hall, at the City of Battle Creek. President, J. H. Montgomery, of Marshall, occupying the chair, called the meeting to order, and in a few well timed remarks explained that the regular meeting had been deferred by the authority of the Executive Committee to the present time, for the reason that the meeting of the American Medical Associa- at Chicago, at which many of our members wished to be present, occurred during the first of the month of June.

Roll called. Present: Drs. Montgomery, Smiley, Cox, Thomlinson, French, Garcia, Foote, Stoddard, Crosby, Haight, Phelps and Davis:

Proceedings of the last meeting read and approved. Drs. J. H. Kellogg and D. C. Hawxhurst, and Miss Dr. Katie Lindsly, all of Battle Creek, were elected members of the Association.

As essayist of the occasion, Mrs. Dr. M. A. Garcia read a very interesting paper, the subject of which was "Uterine Pathology." It is too long for insertion into this report, but too good to be entirely left out.

She introduced the subject by remarking that even in the present advanced knowledge of the profession in regard to uterine pathology and therapeutics, and the flood of light which had of late been thrown upon these subjects by the means of instrumental examinations, much yet remains to be elucidated.

"The past decade had witnessed a complete transformation of uterine pathology, owing to a more correct diagnosis by instrumental means, and till this time, the great error of the profession was in looking upon and describing inflammation of the uterus as a rare disease in the non puerperal state, whereas it is a most common one. As the uterus is that organ to which is entrusted the preservation of the species, and not of the individual to whom it may belong, it has consequently no momentary function to perform like the brain, heart or lungs, with which interference by inflammation gives rise to a group of decided and unmistakable symptoms. But inflammation of the uterus may long remain unappreciated, primarily because its function is shown only monthly, and because it is a much less sensitive organ than most others, and because interference with it does not stop a function immediately necessary to life."

The essayist noted that ancient Greek and Roman physicians made use of ocular inspection, by instruments, of the uterus, and were conversant with many of the other instrumental appliances of the present age. "That these means of diagnosis should have subsequently (during the dark ages) fallen into complete abeyance along with the information obtained through its means, is a singular circumstance in the history of medicine, which can only be explained by the peculiar social conditions through which medical science has since passed." Very many of the so-called inventions of instruments for gynecological surgery have proved to be only re discoveries of old ones.

The writer next noticed the difference in structure and physiological action of the body and cervix of the uterus, and of the far greater predisposition of the latter to disease. She maintained that the periodical function of menstruation is very productive of uterine disease in our highly artificial and foolishly fashionable life, the first symptoms of which disease were leucorrhœa, dysmenorrhœa, menorrhagia, amenorrhœa, etc. She contended most displacements are the results of previous inflammations, and thinks it a grave mistake to treat them independent of the inflamed condition. In short she would consider a displacement of the uterus as the one chief symptom indicative of inflammation of that organ, and therefore, all displacements are to be treated effectually only by attacking the primary condition (inflammation) to which they owe their existence.

The essayist gave briefly the histories of the two, at different times, prevalent theories in regard to all uterine disorders, the displacements, and the inflammatory theory, showing the false basis of the former and the reasonableness of the latter. Also gave her general line of treatment, and closed her interesting essay with these words: "The treatment of uterine inflammation should, therefore, be mainly local, and yet we should not ignore general remedies by any means. In the incipient stage, local depletion should be resorted to. If the inflammation be irritative, mild and soothing treatment should be followed; if sluggish and malignant, the treatment must be more energetic. *In all cases*, regular, punctual and *persistent* local treatment should be observed.

"The views which we have thus taken of uterine pathology may be narrow and circumscribed, yet, indeed, the subject is as exhaustless as its objects are innumerable. Every one who has studied uterine pathology for himself is likely to have seen something that no one else has seen. Let us encourage him to tell us what *that thing* is, so that we may also get leave to see it. Every new friend who will tell us what his own observations have been may be as good as a new pair of eyes to us. If we believe that the *whole truth* is visible to us, the little we know will close around us like a prison, and the universe, for us, will narrow itself to the dimensions of a *cell*."

At the conclusion of the reading of this essay, Dr. A. M. Haight, of Albion, chairman of a special committee to report upon the use of plaster of paris in diseases of the spine, read a paper of which the following is a synopsis.

Your chairman's experience in the use of plaster of paris in Pott's disease of the spine is limited, and also incomplete, as his cases have not yet fully recovered. Having seen plaster used with great success in cases of fracture, gunshot wounds, etc., he came very much to love it as a permanent dressing and in his practice has used it on every appropriate occasion with most satisfactory success. When Dr. Sayre, of N. Y. City, first spoke of using it in Pott's disease, your chairman feared it would be difficult to use it in private practice on account of its weight, stiffness, and especially its difficulty of application. But subsevuently learning more of Drr Sayre's treatment, I resolved to give it a trial at first opportunity, so I made an appliance for suspending the patient from neck and shoulders, and soon used it for the first time in the following case 1st. Mabel F., aged five years. Called to see her July 20, 1875. Found patient running around, but complaining of pain in knee and "leg ache." Found she could not stoop to the floor without resting one hand on the knee and moving very slowly. Stumbled over slight obstacles on the floor. Examination of back revealed a small angular curvature at the juncture of the fourth and fifth lumbar vertebræ. I advised counsel, and she was taken to Dr. H. O. Hitchcock, of Kalamazoo, who confirmed my diagnosis of Pott's disease and recommended absolute rest and the syrup of iodide of lime and iron in conjunction with bromide of potassium and fl. ex. ergot. This treatment was as closely followed as was possible for some time, but the patient got no better, but rather worse. An abscess soon appeared; this was evacuated a number of times by the aspirator.

At about July 19, 1876, assisted by Dr. John P. Stoddard, I applied a plaster of paris bandage, as advised by Dr. Sayre. This gave instant relief. When the bandage was applied there was pus still in the abscess, but we left it to take care of itself. She could now run about at will and the difficulty of retaining urine was relieved. As soon as she was accustomed to the jacket she would not consent to have it removed. Wore this same jacket until the last of February, or about seven months, when it had become so much broken that another one was put on. The abscess had nearly disappeared, and there was less tenderness over the spine and much less curvature. She still wears the second jacket, which still gives relief and furnishes abundant hope that she will soon be permanently cured.

Case 2d, was one of lateral curvature of long standing in a man 21 years of age. The curvature was to the left in the dorsal region, to such an extent that the spine was hidden under the scapula. A corresponding curvature to the right in the lower dorsal and lumbar vertebræ also existed. Patient complained of constant pain in left shoulder. Assisted by Dr. Stoddard, we suspended him by his neck and shoulders on the 25th of July, 1876. Found that there was not complete anchylosis of the vertebræ and therefore applied a plaster jacket. This relieved all pain in the shoulder and enabled him to be on his feet all day. He is now wearing his fifth jacket. The repeated stretchings he has thus had, has made him 2½ inches taller than when first applied, and the spine is now fully an inch from the left scapula. The present prospect is, that by keeping the vertebræ at rest that complete anchylosis will soon occur and he be fully relieved and partially straightened."

Dr. O. S. Phelps, the other member of this special committee, then made a supplemental report on the same subject, presenting at the same time a patient on whom he had applied one plaster jacket, and on whom he wished to apply another one in presence of the Association. The following is the history of the case:

Jay Wolverton, aged 24, was injured four years ago by a rolling log bending him backward. Two years later was thrown from a horse and spine injured again in same place. Soon swelling appeared at seat of injury, but was called by his family physician a fatty tumor, but later, by another physician was prononnced a lumbar abscess. Was evacuated, and abscess has been discharging ever since. On May 20th last, patient consulted me. I found evidences of caries of three or four of the lumber vertebræ and advised an immediate application of a plaster jacket as a mechanical support. Eight days later, assisted by Drs. Haight and Stoddard, of Albion, applied the dressing as described by Dr. Sayre. The patient was at once relieved of his previous pain, which had been continuous for four years, and the abscess ceased to discharge. Has since been enabled to work on a farm with little pain.

This jacket having become much broken was taken off, and in the presence of the Society, another one was applied; and after it had hardened the patient expressed himself as being very easy and that he would not be deprived of the ease and support it gave him for any amount of money.

The discussion of the regular topic of the meeting, diphtheria, was then opened by Dr. Phelps. He commenced by giving the differential diagnosis of diphtheria, croup and scarlatina. He made a very interesting and instructive grouping of the symptoms and physical signs of the allied diseases.

The Dr. rather leaned to the opinion that this disease is a constitutional one, and in the treatment this should be kept constantly in view and great use be made of all known remedies that act as tonics. He considered the local troubles only a manifestation of the general disease. He would support the patient by iron, quinia, nourishing diet, and even diffusible stimulants, but should put much dependence upon warm steam baths to the throat. Also use fumigations of hot water and vinegar with good effect.

Dr. Phelps was followed by Dr. Cox, of Battle Creek, who concurred in what had been said by the former as to the symptoms, diagnosis, differential diagnosis and sequela of diphtheria, except that he had known paralysis to be a sequel of scarlatina as well as diphtheria. He used locally a solution of chlorate of potassium and muriate tincture of iron, and, like Dr. Phelps, used fumigations of water and vinegar. For internal treatment depended on quinine, tincture of iron and chlorate of potash.

The president, Dr. Montgomery, remarked that he had not only been called upon to treat a great many cases of diphtheria, but had also suffered from it in person. He agreed substantially with the other gentlemen, but would say that he had always found the quickest and most complete relief from breathing the fumes from slackening quick lime. He used it in his own case, and now in all others, and it had so far never failed in bringing relief to the sufferer. Used nitrate of silver locally. Should now try sulpho-carbolate of soda.

Dr. A. Crosby, of Albion, said he believed in the use of local remedies in this disease, but of all, placed most reliance upon nitrate of silver in the stick; said he preferred this to a solution for the following reasons·

1st. You can apply it very lightly or very thoroughly in the stick to the parts affected, as you may think desirable, while a solution is not so easily handled.

2d. You can better confine its action to the parts affected than when in solution.

3d. As the parts affected with the fibrinous exudation are very much devoid of feeling, while other parts are very sensative, we can make a more thorough application and with less fear of doing damage to adjacent parts than with a solution.

He was lead to use the nitrate of silver with greater confidence from the fact that he learned that when the diphtheritic membrane appeared upon blistered surfaces, he could heal these sores faster by using the nitrate than by any other means. He believed that where a thorough local application of the nitrate is had on the start, there is far less danger of a general poisoning of the system, as is noticed by Oertel, a writer in the German Cyclopædia. He always made use of the general tonic treatment spoken of by the previous gentlemen, but confessed he placed his main reliance for systemic treatment upon the chlorate of potash, tincture of iron and quinia.

At the close of this discussion, Dr. Crosby invited the Association to meet at Albion at its next session. This was accepted by the adoption of this resolution, introduced by Dr. Stoddard:

Resolved, That when this Society adjourns, it adjourns to meet at Albion, on the first Tuesday in September next.

Resolutions were adopted thanking the Common Council of Battle Creek for the use of their hall.

The Chairman then made the following announcements:

As essayist for next meeting Dr. Amos Crosby, of Albion.

Next topic of Discussion, Scarlatina. To open the same, Dr. M. W. Thomlinson, of Battle Creek, and Dr. Jas F. Smiley, of Marshall.

The Society then adjourned.

JOHN P. STODDARD, M. D.,
Secretary.

Allegan County Medical Society.

The Allegan County Medical met at Allegan, Mich., May 31, 1877, at 10 o'clock A. M., Vice President H F. Thomas, M. D., in the chair.

Present, Drs. H. T. Thomas, E. Amsder, J. J. McConkie, H. S. Lay, F. M. Calkins and J. A. Mabbs.

A motion was made by Dr. Lay that a committee of three be appointed to draft resolutions touching the death of Drs. A. R. Calkins, and D. M. Crane. Carried.

Drs. Amsden, Lay and McConkie were appointed as such committee.

A communication was read from the Secretary of the State Medical Society recognizing this society, and thereby entitling it to representation in the American Medical Association.

Moved by Dr. Calkins that at each regular meeting the president appoint two members to prepare papers upon some medical subject and read them at the next regular meeting, and to place the same in the hands of secretary, if absent. Carried.

Moved to take a recess until 2 P. M. Carried.

The Society was called to order at 2 P. M., Vice President H. F. Thomas, presiding.

The prophylactic effects of belladonna in scarlet fever were then considered.

Dr. McConkie thought it a safe remedy and sure. Would not give it if not to prevent. Used it as a prophylactic, but could not give its *modus operandi*, but considered it possessed such properties.

Dr. Amsden said that belladonna was first introduced as a prophylactic by Hahnemann and his followers. This did not give a good recommend. Thinks that in hygiene we possess a better prophylactic and that the former is too often used to the exclusion of the latter. Have not found it to possess any prophylactic properties.

Dr. Lay said that he had not found belladonna of any use as a prophylactic in scarlatina. That our best authors were not in favor of it. Found isolation and good sanitary conditions were the best with the use of tincture ferri chloridi.

Dr. Thomas had never been sorry that he had used it but had been when he did not. Have seen good effects alike as a prophylactic and remedy in the disease. Shall continue its use.

Dr. F. M. Calkins: I find some authors advise giving belladonna until it produces its physiological effects. It is very difficult to get patients to take it, from its disagreeable symptoms. My experience is not much in its favor.

Further consideration was then postponed and the following question was taken up. "Are there any physiological reasons for placing the new-born child upon the right side in preference to the back or left side?"

Dr. McConkie had experienced benefit from this position for the first three or four days, during which time the foramen ovale was imperfectly closed, and this position favored more complete closure of the valve of Botali. He also spoke of some cases in his practice in which this position gave immediate relief.

Dr. Amsden had not perceived any benefit from this position upon the right side, but the suffocation of the new born child frequently due to too much pressure upon the chest, and removing gave relief. Did not recommend any particular position.

Dr. Lay had found position upon the right and head raised to prevent and remove asphyxia of the young child. Also read reports of cases from authors who spoke in favor of this position.

Dr. Calkins spoke of the anatomy of the fœtal heart and deduced the cause of suffocation.

It was moved that the editors of our several county papers be requested not to publish our names in connection with cases or surgical operations. Carried.

Moved that when we do adjourn, it be until the last Wednesday in June, 1877. Carried.

J. A. MABBS,
Secretary.

P. S.—This society has had no meetings since January, 1872, until April 26th, 1877. It now proposes to meet regularly hereafter.

Abstracts From Exchanges.

Practice of Medicine.

THE LATE EPIDEMIC OF TYPHOID IN PARIS. (*British Medical Journal*, March 24, 1877)—The total number of deaths caused by typhoid fever in Paris during the last six months is 1,645. Assuming an average mortality of 20 per cent. this would correspond to 8,000 or 9,000 cases, or one in every 200 inhabitants. M. Besmer, who has been studying the epidemic, states that typhoid fever attacks a much larger number of men than women, of boys than girls; but the relative mortality of the disease being greater in women and girls, the ultimate result, as regards the two sexes, becomes, as a matter of fact, equal.

BELLADONNA IN ENTERIC FEVER. (*Dr. Harley, Edinburgh Medical Journal*, Dec., 1876)—1. In moderate and repeated doses belladonna exercises a hypnotic and sedative action on the brain and spinal cord, and a powerful stimulant action on the sympathetic nervous system.

2. Its action is the same whether it be given alone or in combination with opium, but with the latter it is somewhat intensified.

3. Moderate doses excite for hours a tonic and contracted condition of the small arteries and capillaries.

4. Excessive doses produce exhaustion and a dilatation of the minute vessels, with a resulting stasis of the blood.

5. Fifteen minims of the succus (B. P.) exhibited every four or six hours, is sufficient to maintain the moderate beneficial atropism.

6. This dose never increases delirium, if present, but usually diminishes it.

7. In the occasional attendant congestion of the kidneys with albuminuria, it is the appropriate remedy, as an active circulation is kept up in that organ during the entire time of its elimination by the same.

The results of its administration in the recorded cases of Dr. Harley were:

1. The rate of the pulse and the temperature were never, as a rule, increased, but on the contrary, both symptoms uniformly declined.

2. Prolonged use of the medicament after cessation of pyrexia, caused an irritable debility of the heart, as if from overstimulation. Accordingly the dose, symptoms, and course of the disease must be watched

3. One of its most noticeable effects was the moistening of the tongue during the pyrexia.

4. The delirium was never increased, and its presence is not a contra-indication to the exhibition of belladonna. Insomnia was also generally diminished.

5. Its effects upon the skin, the diarrhœa and hæmorrhage were unnoticeable.

SUDDEN DEATH FROM EMBOLISM. (*Dr. R. H. Fitz. Boston Medical and Surgical Journal,* Jan. 25, 1877).—A marked feature in such cases is the sudden and unexpected nature of the attack, whether taking place during the progress of disease or in persons apparently in good health. No effectual relief can be furnished to diminish the distressing symptoms unless it is by the administration of anæsthetics, which simply brings about a state into which the patient will probably soon pass, as the carbonic acid poisoning becomes evident.

No symptoms point absolutely to embolism, although there are some which are suggestive. The symptoms of an immediately fatal attack are: Sudden extreme dyspnœa with open tubes, cough and thoracic pain, lividity or pallor, rapidly failing pulse, cold sweats, intense anxiety, and attacks of fainting or unconsciousness, with or without spasms. These may be referred to the lungs, heart and nervous system, and are evidently due to the sudden elimination of more or less of the pulmonary circulation. The results are two-fold, blood accumulation in the right side of the heart and nervous system in general, and blood diminution in the left heart and arterial system. This arterial blood is poor in quantity and quality, since, owing to the obstruction in the pulmonary vessels, it is poor in oxygen and rich in carbonic acid. For the same reason the venous blood throughout the body contains an excess of carbonic acid; and hence the feeling of suffocation with open air tubes. The heart's action becomes enfeebled and irregular from insufficient blood supply to its walls, as well as from eventual paralysis of the pneumogastric nerves, and death is thus likely to occur from asphyxia.

In the diagnosis the suddenness of the conditions being of the chief interest, all those forms of suffocation requiring time for their production may be disregarded, and there remain—

1. Closure of the greater air passages or of a large number of small ones, from without or from within.
2. Nervous lesions, particularly intra-cranial, affecting respiration and circulation.
3. Obstruction to the pulmonary circulation from emboli, of blood and air particularly, fat being more gradual in its effects.

Physical and rational evidence of open air passages eliminate the first series. In intra-cranial origins of suffocation the predominant early symptoms are those of cerebral anæmia, namely, pallor, relaxed muscles, disturbed hearing and vision, contracted pupils, fainting and convulsions. Dyspnœa may sometimes precede these symptoms, but it is not of so severe a character as in the other series.

In favor of the third is the history of an antecedent thrombus, or of a disease of the heart likely to be associated with thrombosis.

ACUTE AMMONIACAL COLLAPSE. (*Centralbl. f. Chir., p. 694,* 1876. *Med. Times,* Jan. 20, 1877).—W. Roser, from a series of cases of acute ammoniacal collapse, draws the following conclusions:

1. Acute ammoniæmia arising from the absorption of decomposing urine excites sudden collapse, with decided lowering of the temperature of the blood.

2. In cystitis and pyelitis this lowering of the temperature may serve as a diagnostic sign of ammoniæmia.

3. If the originating cause of the acute ammoniæmia can be removed without loss of time, for instance, by puncture of the bladder, urethra or pelvis of the kidney, the collapse is frequently observed to pass off.

4. Ammoniæmia deserves much more attention at the hands of surgeons than it has hitherto received.

CONSIDERATIONS ON THE CURES IN INSANITY. (*Guy's Hospital Reports, 3d Series, 1876. Am. Jour. Med. Sciences,* Jan., 1877.)—Dr. G. H. Savage, in a very carefully prepared paper upon this subject, makes the following remark, which is of peculiar interest to the general practitioner, since he is more apt to see cases of insanity at the beginning than at any other time:

"It is to be observed that cases get well in much larger roportion if they have been sent to an asylum early. This is ost vital point, and one that we are never tired of bringing e the public and the general practitioner. It is false econ- -if done for economy—to keep a patient in a workhouse private house when he is distinctly insane. My expe- ompletely corroborates that of Dr. D. H. Tuke, at 'The that over 70 per cent. of cases admitted within three the first attack get well; whereas, of sufferers from a attack admitted to an asylum treatment twelve he onset not twenty per cent. get well."

GASTRIC AND THE SO-CALLED INHIBITORY ndus, *Lon. Med. Rec.,* Jan. 15th, 1877.)— results of a series of experiments upon the effects of electrical stimulation of these nerves. An ordinary Faradic current interrupted thirty to thirty-five times in a second corresponds pretty well with the number of nervous shocks transmitted along special nerves, so that striped muscles usually respond well to the stimulus. Automatic and rythmically acting organs require some numerical relation to be observed between their rythm and the stimulus, or the effect will be a perturbation instead of increase of function. Like C. Legros, he found that if the pneumogastric nerve were stimulated by a current interrupted at long intervals no arrest of heart's action took place, and for this result 16 or 18 shocks per second were required for warm blooded animals. From his new experiments he announces that by even and moderate stimulation of the heart, at intervals corresponding somewhat to the existing cardiac rythm, stronger contractions are produced, and that by this means the hearts of animals nearly poisoned by curare or chloroform can be re-awakened to functional action. The peristaltic action of the intestines, when the latter are not empty, was increased, if the interruptions were somewhere about equal to the normal rythm of fifteen to eighteen per minute.

In the vaso-motor nerves currents interrupted at long intervals produced, not tonic contraction, but dilatation with increase of temperature.

Hence the nerves of vegetative life and of unstriped fibre, above all when they belong to organs which have a rythmic, coordinated, and automatic movements, do not respond to artificial stimuli in the same way as spinal nerves. Too numerous and too rapid excitations cease to provoke functional acts and become causes of perturbation. The phenomena of arrest which have been obtained in these conditions are the results of this perturbation. So-called depressor nerves come under the general laws of action of all nerve filaments, their physiological excitation provoking always the activity of the organs to which they are supplied.

ERGOT IN DIABETES INSIPIDUS.—Dr. J. M. Da Costa *(Medical and Surgical Reporter*, Jan. 6, 1877*)*, on the strength of the good results obtained in the treatment of three cases of diabetes insipidus, highly recommends the use of ergot in this affection. He administers it in one to two drachm doses of the fluid extract thrice daily. In his last case the amount of urine during the twenty-four hours was reduced from eighteen pints to four after three weeks' treatment, and it did not again increase on the suspension of the remedy.

ANHYDROTICS. *(Fothergill, London Practitioner.)*—Anhydrotics are agents which check profuse perspiration. The term is formed by the addition of alpha (a) privative to the adjective hydrotic, the name of the acid found in the sweat by Favre. The temperature of the body is regulated in health by the activity of the sudoriparous glands, which are thickly scattered over the surface of the body. In disease the vascularity of the skin and the functional activity of these glands are not directly proportioned to each other, for Leyden found that there was no perspiration in the dry, burning skin of a rising fever. On the other hand when syncope or terror supervenes, with a blanched skin, the sweat glands are active, and the cutaneous surface is studded with beads of perspiration, so that although there is an arterial anæmia of the skin, their activity has not ceased. This is possible by means of the large plexus of capillaries at the base of each gland. These cold perspirations usually denote conditions of exhaustion.

Sweat is a secretion and not a transudate, as the entire absence of albumen shows. It is normally acid, but when profuse or prolonged the secretion becomes neutral or even alkaline, but whether from the lack of acid or the increase of alkalies has not been determined. With the increase of secreted fluid grows the amount of solids excreted. The salts of the body, especially the phosphates and chlorides, are thus reduced, and the evil effects of profuse perspiration become readily intelligigle. Hence in conditions of debility with tendency to exhaustion, this becomes a serious matter, for we have the vicious circle; the greater the debility the stronger the tendency to profuse perspiration; the more the perspiration the greater the exhaustion induced. If we check the excessive sweating, we break, in one point at least, the ever widening circle.

Of the anyhdrotics some are administered internally, others externally. Of the latter the mineral and vegetable acids in a large proportion of water and applied with a sponge are the most useful. Heat applied in the form of sponging with water as hot as can be borne is another important one, according to Dewitt, in the excessive perspiration of phthisis.

Of the internal remedies the chief are dilute phosphoric acid, other acids, the mineral and vegetable astringents, the oxides of silver and zinc, tonics, and some of the solanacæ.

The first is given at intervals during the day, or employed, well diluted and sweetened, as a beverage during the night. Of the other acids, the dilute sulphuric acid in sulphate of magnesia gives satisfactory results. The astringents are as useful here as in any other form of flux.

The sulphate of copper is a powerful agent in this respect, and when given with opium, to check the cough, and pil. al. et myrrh, to keep up the action of the bowels, the combination forms one of the best remedies for the exhaustive hydrosis of phthisis.

The vegetable astringents are not usually given alone, but are combined with the mineral and the acids.

The indication for tonics is patent to all.

The oxides of silver and zinc are both useful, but their utility is greatly enhanced by the addition of hyoscyamus. In belladonna we have the most potent of all anhydrotics, and in pulmonary phthisis its use often changes the aspect of a case, for it is as potent in arresting the night perspirations as digitalis is in giving tone to a feeble heart. In the last stages of disease neither are very effective, but in the early ones the action of each is very pronounced. The loss of the salts of the body in profuse perspiration quickly exhausts the system; and the arrest of this drain commonly permits of the other measures being effective in improving the general condition. To produce these effects the dose must commence with 1–75th of a grain of atropine and go up to 1–25th, unless the perspiration ceases before reaching the last point; the latter dose rarely fails. Once the effect is obtained, smaller ones will maintain it. Dr. Ringer's doses a [illegible] neficial. Even with the 1–25th of a grain of atropine every night, the patients do not complain much; all prefer the little dryness of the throat and indistinctness of vision to their dreaded night-sweats. Belladonna, in conclusion, seems to be a specific anhydrotic, acting on the sudoriparous glands as it does on the sub-maxillary gland.

SIMPLE MEANS TO LESSEN THE PAIN OF A BLISTER.—(*Lyon Medicale—The Clinic*, Feb. 10, 1877).—M. Ernest Besnier proposes the following plan: Apply the blisters early in the morning; these, properly prepared, covered with a leaf of oiled Joseph paper, will cause very little pain, and never produce the sometimes grave and always painful vesical and renal symptoms, provided that the blisters are removed after five or six hours, at most, or soon as the epidermis commences to lift itself lightly and partially, which one can easily tell by the ivory-colored and wrinkled appearance of the skin. Now cover the latter with blotting paper, saturated with cerate or cold cream. Vesication then continues, almost painless, and the blister is almost as large as if the application of the cantharides had been continued.

VARIATION IN THE NUMBER OF WHITE BLOOD-GLOBULES IN CERTAIN MALADIES. (*Prog. Med.* Dec. 2, 1876. *Med. Record*, Feb. 3, 1877.—Dr. Henri Bonne of Paris, says that there is a constant relation between the production of pus and the presence of an excess of white globules in the blood. Thus, during the evolution of an abscess there is an excess of the globules in the blood, but as soon as exist is given to the pus, this excess disappears. Also when a suppurating wound exists, the white corpuscles are in excess. In the internal febrile maladies, the period of leucocytosis does not seem to correspond to the time of the highest temperature, but to the formation of pus in the organism; thus in typhoid fever, the increase is observed at the outset of the disease, and at the commencement of convalescence, and in pneumonia, only at the period of hepatization. After the eruption of a group of herpes vesicles, during the continuance of the lochial discharge, after parturition and during leucorrhœal discharges, the white corpuscles are likewise diminished in number.

Therapeutics.

TREATMENT OF RINGWORM OF THE SCALP BY CROTON OIL. (*Bull. Gén. de Therapeutique*, Aug. 15, 1876; *Boston Medical and Surgical Journal*, June 14, 1877.)—Dr. de Lacharriere advises the employment of croton oil mixed with an equal part of lard for the cure of this difficulty. The preparation is to be rubbed repeatedly into the scalp until the hairs of the affected part loosen, owing to the specific folliculitis produced by this substance, and fall. He claims to have obtained many cures in six or eight weeks in this way, after the usual methods of epilation, mercurial application and the like have failed.

SALICYLATE OF SODA IN CHRONIC DIABETES MELLITUS. (*Ber. Klinische Wochensch. Boston Medical and Surgical Journal*, April 19, 1877.)—Dr. Muller-Warner, from a detailed account of two cases of this disease treated with this drug, arrives at the following conclusions: 1. Salicylate of soda can completely remove the symptoms of diabetes mellitus, yet its action does not appear to be lasting in many cases. 2. The symptoms of diabetes are made to disappear the quicker by salicylate of soda the greater the dose in which it is used and the longer it is borne by the patient. 3. The first action of medium daily doses, nine to ten grammes, on diabetes appears gradually to abate, while large doses, fourteen to sixteen grammes in a day, act on patients progressively. 4. Salicylate of soda can be borne in chronic diabetes mellitus in large daily doses for a long time without special disturbance of the general condition. If symptoms of poisoning appear, they rapidly and completely disappear, after a short omission of the drug. 5. Salicylate of soda in chronic diabetes, even on long continued exhibition, appears to possess only a slight irritating action on the kidneys.

ARTIFICIAL MILK.—Some patients cannot take milk and yet need to be fed on a liquid food. The following substitute will meet such cases. (Fothergill's Therapeutics, page 546.) Pour a pint of rice water upon a tablespoonful of a mixture of fine almond flour (4 ozs.) and prepared sugar (2 ozs.) The latter consists of sugar of milk 13 ozs., powdered lump sugar 2 ozs., and 1 oz. of a combination of salts of which this is the formula: chloride of potassium, 6 ozs; phosphate of soda, 3 ozs; phosphate of magnesia and phosphate of iron, 1 dr. The rice water should be poured on boiling hot and the mixture well stirred, after this it should cool and then be strained through a sieve.

SALICYLATE OF ATROPIA. (C. R. Tichborne, F. C. S., *American Journal of Pharmacy*, April 1877)—The ordinary solutions of atropia are open to several objections, for if any proportion of the liquid consists of rectified spirit, irritating effects are produced upon the eye, although the preparation keeps well; while if distilled water is employed as the solvent, although irritating effects are avoided, the solution quickly shows the presence of fungoid growths. Mr. Tichborne, after numerous experiments to form a salt of atropia and salicylic acid, recommends the following formula, a preparation of which, after having been kept six months without presenting the slightest sign of a fungoid growth, was employed by several of his friends who are in the foremost ranks of ophthalmic surgery. They all agree in its superiority for keeping properties and non-irritating power.

℞	Atropia	2.7 grains.
	Salicylic acid (crystal)	1.3 grains.
	Water	1 ounce.

Mix and allow it to stand until it is dissolved.

HYOSCYAMINE AS A HYPNOTIC. (*London Med. Record. Boston Medical and Surgical Journal*, March 22, 1877.) Physiologically this drug causes a subdued form of mania, associated with almost complete paralysis of the voluntary muscles. From these premises, Mr. Dawson supposed that the quieter form of mania might be substituted for the very excitable cases and that this effect in its turn would disappear and leave the patient in a state of quiescence. Accordingly a grain and a half (0.097 gramme) was administered to a violent maniac, who had already spent a month in the asylum, and two hours after the patient was fast asleep. The next morning he was very subdued and from day to day his recovery progressed and in less than two months from the single dose of hyoscyamine and after a period of complete sanity, he was discharged In his paper, Mr. Dawson says: "In about fifteen minutes the most violent and excited patient can be thrown into a comparatively deep sleep by about a grain of the amorphous alkaloid, and on wakening from his slumber almost invariably frees himself also from the delusions and hallucinations which have bewildered him, and I can adduce numerous instances in which this recovery, rapid as it has been in its accession, has also been thorough and enduring." The following is the form in which it is administered:

℞	Hyoscyamine................	grj.; or 0.064 gramme.
	Spt. Etheris...............	minims viii.
	Alcoholis.....................	minims xxiv.
	Aq. font.......................	ad. ℥i or 29 c. c.

CHAMOMILE FUMES IN HAY FEVER. (*Medical and Surgical Reporter,* April 14, 1877.)—Drs. Barnes, brothers, of Illinois, from their success with it, suggest this simple remedy, the inhalation of the smoke from burning the flowers of the English chamomile (anthemis nobilis). The fumes should, of course, be brought into contact with every portion of the nasal passages, in order to receive the full benefit of the drug. A few coals on a plate and the flowers dropped on it, is a good way of using it.

Action of Remedies.

ACTION OF IRON IN ANÆMIA. (*Gaz. Med. de Paris,* Dec. 9, 1876. *Med. Record,* Feb. 10, 1877).—M. Hayem, in the course of his researches upon the condition of the blood in anæmic patients, publishes some facts supporting the opinion that iron acts on the ultimate nutrition of the red globules.

1. In a cubic millimetre of blood we find, on the average, about 5,500,000 red globules.

2. In moderate anæmia the number is about the same, but they are altered in size and contain less hæmoglobine. Thus in a given case, containing 5,352,000 globules in a cubic milli-

metre of blood, the latter will not be more colored than if it contained 2,500,000 healthy globules.

3. Under the long continued use of iron the globules diminish in number, but they acquire their normal dimensions and become richer in hæmoglobine.

4. In extreme anæmia the number of globules is diminished, e. g., to 2,500,000.

5. Under the use of iron a number of new, small, pale red globules first appear, and then the blood undergoes the same changes as in moderate anæmia, so that when the cure is effected the globules are individually physiological, but are less numerous than at certain periods of the disease.

6. In the anæmia of the fatal cachexias, larger globules are found than those of normal blood. When the anæmia becomes extreme these hypertrophied elements increase in number, and although very small elements are present, the average dimensions of the globules vary less from the normal than in less intense anæmias. The red globules now decrease daily in number, and iron no longer arrests the progress of the change.

7. The use of iron, even then, may cause the remaining globules to take up hæmoglobine, and the hypertrophied elements may possess more coloring matter than healthy globules. Thus, in one case, containing only 414,062 globules per cubic millimetre, the average value of each globule was 1.34.

POISONOUS ACTION OF SALICYLIC ACID.—Prof. Abelin, of Stockholm, *(Lon. Med. Times and Gaz., Med. and Surg. Reporter*, Feb. 17, 1874*)*, is of opinion that in young children the use of salicylic acid must be very restricted, as deaths have occurred from its administration. In a dose of twelve to fifteen grains, although divided into three portions, it acts as a corrosive poison ; in smaller quantities it lowers the temperature without acting beneficially on the course and symptoms of the malady.

NITRITE OF AMYL. *(British Med. Jour.*, Jan. 27, 1877.*)* —Mr. W. Lemon Lane, M. B., as the result of experiments upon kittens, publishes the following conclusions:

1. Amyl nitrite, when inhaled in small quantities, produces reddening of the face in man and of the nose and mouth in kittens; this action is due, according to Brunton, to the dilatation and overfilling of the arterioles.

2. Large quantities, by inhalation, produce in kittens cyanosis of the nose and mouth along with insensibility. The former arises from over-distension of the venous system, this being due to the engorged arterioles propelling the blood into the veins, while the insensibility probably arises from over-distension of the venous system and of the heart.

3. When inhaled in small quantities it produces recovery from chloroformic insensibility by dilating the arterioles of the brain, and thus removing the cerebral anæmia due to the chloroform.

4. When inhaled in large quantities, instead of producing recovery from chloroformic insensibility, it not only retards it but it may cause death by paralysis and over-distension of the heart and engorgement of the venous system.

5. It causes a rise of temperature when inhaled in small quantities, by the increased amount of blood in the arterioles causing an increased tissue change in the body.

6. In large doses (inhaled) it produces a fall of temperature.

7. It also helps to produce recovery from the chloroformic insensibility by raising the temperature, which is always lowered by chloroform, and by removing the paralysis of the heart due to chloroform; this action is well seen by the nitrite of amyl making the heart's beat fewer and its sounds louder.

8. Death is caused chiefly by paralysis of the heart, which is shown by all its cavities being distended and by engorgement of the venous system.

THE ACTUAL CAUTERY IN SPASMS, PARALYSIS AND EPILEPSY. (*Eugene Dupuy, M. D., New York Med. Jour.*, Jan. 1877.)—The doctor gives the notes of a few cases of confirmed chronic disease which he treated with success by applications of the actual cautery, after all other remedies had failed to bring about any improvement. The patients previous to and during the treatment, were in the wards of Dr. J. J. Mason, at the Hospital for the Paralyzed and Epileptic, on Blackwell's island. It is to be noted that all the patients had tender, sometimes hyperæsthetic, spots along the spine. In the cases of spasm the cautery was applied over the affected muscles, while in the epileptic and paralytic cases it was passed along both sides of the spinous processes of the vertebræ. The applications are made once every two to four days, and manifest improvement or cure should be present before the tenth seance. The rules for treatment are those of Dr. Brown-Sequard:

1. The instrument has to be heated to whiteness.
2. It must be shaped like an olive (blunt end).
3. It must not be allowed to burn the skin, but is passed rapidly along the space to be acted upon, so that, after the operation is over, nothing is seen but a *white line,* resembling greatly a scratch with a finger nail.

So applied, it is never painful. Hence there is no necessity of first applying ether spray on the spot to be cauterized, as the former is more painful than the latter, and, moreover, mars the good effects of the application of the instrument, as the object of the operation is to act on the terminations of nerve fibres in the skin, but not to destroy them.

JABORANDI. (Drs. O. Kahla and J. Soyka, *Centralb. f. d. Med. Wissensch, No. 31. Journal of Nervous and Mental Diseases.)*—Dogs and rabbits were experimented upon in order to note the action of jaborandi upon the heart, and the preparations employed were infusions of the beans injected into the veins. The results were:

1. Small doses (5 cgm.) caused an immediate and rather transitory depression of the blood pressure, with simultaneously appearing and disappearing quickening of the pulse.
2. Larger doses (10 ccm.) have the same but more lasting effect, but, on the other hand, the slight quickening of the pulse at the commencement is followed by a slowing simultaneously

with the rise of the blood pressure. At the same time a notable increase of the fulness of the pulse is remarked.

3. Large doses (20 ccm.) produce a deep and lasting decrease of the blood pressure, and an immediately appearing marked slowing of the pulse. The increase in volume of the pulse is very noticeable.

4. With the size of the dose the duration and intensity of the symptoms also increase; still they generally disappear.

5. The cause of the phenomena here observed is probably an irritation of the cardiac terminations of the vagus. This is indicated by:

6. The appearance of the symptoms unchanged after section of both vagi; and

7. Their complete disappearance after the cardiac terminations of the vagi had been altogether paralyzed with atropia.—*(The Clinic*, Jan. 20, 1877.*)*

ACTION OF HYOSCYAMINE AND ITS RESEMBLANCE TO ATROPINE. (J. Sydney Pearse, *Lancet*, Nov. 1876).—The solution employed was of the strength of one grain of the crystalline hyoscyamine to two drachms, a solution similar to the liq. atropine of the B. P.:

1. An application, painted upon the skin, like atropia, relieves pain. It produces neither redness nor anæsthesia.

2. When applied to the skin around the eye, neither dilatation nor any alteration of vision results. In this it differs from atropia.

3. When applied to the conjunctiva, like the latter, it causes an equally great and continuous, but not so rapid, dilatation of the pupil. Fifteen minutes are required for the complete manifestation of its action.

4. The duration of dilatation varies from two to twenty-one days.

5. In no case, to produce this action, is dilatation of the opposite pupil or constitutional effects produced.

6. A subcutaneous injection of 1-60 grain, like atropia, gives rise to great dryness of the skin, mouth and pharynx;

great thirst; flushing of the face; conjunctival injection, mydriasis, loss of the power of accommodation of the eye; increased frequency and fulness of the pulse, and sometimes a rise in temperature of one depree.

7. The increase in the frequency of the pulse is not so great as that caused by atropia, as 50–60 above normal have been recorded for the latter, while only 36 were noted for hyoscyamine.

8. The mind is not affected nor is there any delirium.

9. Unlike atropia, no unsteadiness of the gait is produced by the former.

10. The effects of hyoscyamine upon the secretion of urine are dissimilar to those of atropia, as its amount is not increased.

Physiology.

QUANTITATIVE ESTIMATION OF UREA. (*New York Medical Journal*, June, 1877.)—Dr. G. B. Fowler, of the College of Physicians and Surgeons, New York, reports a new method for the quantitative estimation of urea, which recommends itself by its exactness, simplicity and necessity of few instruments. Dr. Robert's plan of determining the amount of sugar in a solution merely by the difference in specific gravity before and after fermentation, suggested the idea that the difference in specific gravity before and after decomposition by the hypochlorites or hypobromites should bear a definite relation to the quantity of urea originally present in the solution. Numerous experiments and comparisons of results with those obtained by Liebig's method, demonstrated that Dr. Fowler was correct and he accordingly recommends the following procedure: by preliminary experiments upon solutions of pure urea, he determined that *every degree of density lost indicates 7.791 milligrammes of urea per cubic centimetre of the solution (3.55 grains per ounce).* Now take two glass cylinder jars, one about nine inches in height by one and a half in diameter and the other about seven inches by one inch. Into the smaller pour a quantity of urine and take its specific gravity. Pour one half ounce of it (15 c. c.) into the large jar. Wash the smaller jar thoroughly and in it take the specific gravity of the hypochlorite solution. Add to the urine in the large cylinder exactly seven times as much hypochlorite as there was urine taken. With the mingling of the two fluids, brisk effervescence arises and care must be taken that none of the mixture be lost. After a time this diminishes and now by vigorously shaking the jar at short intervals, at the expiration of an hour the decomposition is complete. Now take the gravity of the quiescent solution, deduct from what it was before decomposition and estimate the amount of urea on the basis given above: e. g. sp. gr. urine 1020 and that of the hypochlorite 1045. But the mixture effervesces, therefore for its sp. gr. we must resort to the law of proportion:

1 part at………………….1020=1020
7 parts at…………………1045=7315
8 8335
1041⅞ sp. gr. of mixture.

Substracting from this the sp. gr. after decomposition, say 1038⅞, we have a loss of 3°. Every degree of loss equals 7.791 milligrammes per c. c. of urine used. Therefore, the urine contained 23.373 milligrammes of urea per c. c. The temperature of the fluids should all agree when their sp. gr. is taken. Suibb's liq. sodæ chlorinatæ should be employed.

RESPIRATORY SOUNDS, NORMAL AND ABNORMAL. (*Review Mensuille de Med. et de Chir*, March, 1877. *London Medical Record*, April 15th, 1877.)—Mm. A. Bondet and A. Chauveau made their experiments upon a young and vigorous mare attacked with pneumonia of the left side, attended with such alarming symptoms that death was thought imminent. Considerable increase of the natural inspiratory murmur was heard all over the right side; no sound with expiration. On the left, over the upper half, there was also exaggerated inspiratory murmur over the lower half; this murmur was completely abolished and replaced by a double tubular blowing sound. The inspiratory part of the tubular sound was longer and softer than the expiratory portion, which was louder but shorter. Auscultation of the trachea showed that the inspiratory and expiratory sounds heard over this tube, though louder, possessed exactly the same character as the tubular sounds heard over the consolidated lung, and an incision of the trachea in the middle of the neck, about 20 centimetres (8 inches) long, was then made, an opening giving free passage to the air during inspiration and expiration, allowing no air, or only an insignificant quantity, to pass by the larynx. Immediately after the operation the state of the animal was such as to render null any observation which might be made, as the amount of blood and mucus which had entered the trachea and bronchi caused a terrible condition of distress. The next day, however, the mare was not only alive, but better, and the physical signs were found precisely the same as before the operation, all rales having now disappeared.

1. Now, on listening over the hepatised portions of lung with the *trachea closed*, they heard the sounds already described; with the *trachea opened*, the inspiratory tubular sound disappeared and the expiratory sound was much shorter and weaker.

2. Exactly the same phenomena were observed on auscultating the trachea below the incision when this was *opened* or *closed*.

3. On auscultating the sound lung and the sound portions of the diseased one, no alteration was observed in the natural respiratory murmur, whether the trachea were opened or closed; if anything the murmur was a little increased in intensity at the moment when the trachea was opened.

4. Sounds were artificially produced in the trachea by placing in it a caoutchouc tube through the lips of the tracheal wound and blowing through a membraneous reed fixed to its free extremity, thus imitating the conditions under which the voice is produced.

Over the diseased portion of lung the sounds were heard with the greatest clearness. Over the healthy portions the transmission of the sounds was wholly arrested. These experiments repeated always gave the same results. Afterwards, when profuse bronchial secretion arose, the tracheal sounds would suddenly cease to be heard over the hepatised lung; at the same time there would be noticed entire absence of the tubular or any other breath sound; but if the animal coughed or expectorated, all the tracheo-pulmonary acoustic phenomena returned as clearly as before.

MM. Bondet and Chauveau draw the following conclusions;

1. In the horse, healthy lung tissue is a very bad conductor of sound.

2. The normal inspiratory murmur originates in the lung tissue itself; it arises where it is heard. From other experiments they conclude that it is caused by the entrance of air into the infundibules.

3. Hepatised lung tissue is a good conductor of sound, since it brings clearly to the ear, applied to the chest, the sonorous vibrations artificially produced in the trachea.

The mechanism of this conduction is thus analysed:

1. The vibrations are transmitted to the pulmonary parenchyma, not by the walls of the air tubes, but by the air contained in them.

2. Arrived at the ultimate ramifications of the bronchiæ, these vibrations are conducted to the ear by the pulmonary tissue and the chest wall.

3. The tubular sound heard over hepatised lung is a transmitted sound, originating at a distance from the spot where it is heard.

4. The tubular breath sound of pneumonia and tracheal sounds are the same phenomena heard at different spots, and alike produced by the passage of air through the aperture of the glottis.

THE NERVES OF THE SPLEEN. *(Centralblatt. London Lancet,* March, 1877.)—Bulgak, in a recent paper, supplies some interesting particulars in regard to the origin and distribution of the splenic nerves. The experiments were made upon dogs partially narcotized by morphia or chloroform. The abdomen was opened by a crucial incision, the spleen carefully uncovered and the intestines and abdomen generally were covered with soft linen cloths dipped in an artificial serum. The nerves surrounding the vessels were then excited by a weak galvanic stimulus.

The splenic nerves are of two kinds, centripetal and centrifugal, for on excitation of the central extremity of one set of divided nerves, well marked general reflex contractions of the spleen occurred, and if the animal at the moment was at all sensible it gave indications of pain by its movements and cries. No such results followed excitation of the distal extremity. Irritation of the centric extremity of the other divided set caused no contraction or indication of pain, whilst irritation of their distal extremity induced contraction of the spleen, limited to the part to which the nerve was distributed. Excitation of the nerves generally caused the spleen to become harder, paler and more granular on the surface than natural. By a method of exclusion he has demonstrated that all the motor and sensory fibres of the spleen run in the great splanchnic nerve of the left side; division of this nerve causes all signs of the reflex action to disappear. Thus he found that the reflex centre for the spleen was not in the cœliac ganglion, as has been supposed, and accordingly he examined the spinal cord.

From his experiments he concludes that the splenic centripetal and centrifugal nerves enter the cord as low as the eleventh dorsal vertebra, and that they ascend in the cord to a sensori-motor centre situated in the cord between the fourth and first cervical vertebræ. Most probably its vaso-motor nerves proceed from the same source.

The number of white blood corpuscles issuing from the spleen is greatest during the ordinary non-contracted condition of the organ; it diminishes on its contraction and attains its minimum during the period of return to the normal state. If, however, the spleen were made to contract after it had been previously swollen by ligature of the veins, the number of leucocytes contained in the splenic venous blood underwent great augmentation.

THE BIOLOGICAL POSITION OF THE PHOSPHATES. (*La France Medicale*, *Pac. Med. and Surg Jour.*, June 1877.)—M. Joly presents the following propositions as the result of his inquiries on the subject :

1. The organism contains five different species of phosphates; the phosphate of iron in the red blood corpuscle, the phosphate of sodium in the liquor sanguinis, the phosphate of potassium in the nervous system, magnesium phosphate in the muscles, and calcium phosphate in the bones.

2. The presence of the phosphates is intimately connected with all the vital acts; they preside over the nutritive phenomena and muscular activity, and have depending upon them the manifestations of intelligence.

3. Sickness or disease and dephosphatization are inseparable terms.

4. The phosphates have one principal biological function, which is identical with them all and which consists of a stimulation by means of the phosphoric acid which they continually set free by their decomposition.

5. They have secondary effects due to the nature of their bases, according to which they act as a mechanical support for living tissue, as agents in the production of physical liquefaction or solidification, and as chemical solvents.

6. The biological importance of the phosphates is proportionate to the quantity which is contained in the red blood globule.

COMPRESSED OXYGEN. (*L'Union Medicale*, June 9th, 1877.)—M. Paul Bert, recently read the following interesting communication before the Academie des Sciences, Paris: Some years since I published the fact that compressed oxygen would cause the death of all living beings subjected to its influence; in a word, of all anatomical elements, whether isolated, as the corpuscles in the blood or microscopical entities, or grouped in tissues, forming the complex organs. Directing my attention particularly to the various phenomena comprised in the name of *fermentation*, I discovered that all those whose appearance depended upon the presence of a living being (putrefaction, acetification of wine, alcoholic fermentation, etc.,) were arrested by even the transitory action of compressed oxygen, while fermentation due to the action of some dissolved substance (diastase, pancreation, myrosinie, emulsin, etc.,) resisted its influence perfectly. Applying this new method of analysis to the study of problems which are to-day still subjudice among physiologists, I have made numerous experiments whose results I wish to report to the Society.

Maturing and over ripening of fruit.—Experiments show that fruit, which can mature after being separated early from the tree, if subjected to the action of compressed oxygen for several hours after its removal, can be indefinitely preserved and will not become any riper or go on to the stage of rottening; on the other hand, fruit, which attains that stage of over ripeness in which only it is fit to be eaten, will undergo that process, although subjected to the action of compressed oxygen and in fact with greater rapidity than when left in the open air. I conclude from these facts that: 1. That ripeness is the result of a cellular evolution; 2, that over-ripeness is due to either the action of a soluble ferment manufactured anteriorly by the cells of the fruit, or to a direct oxidation of certain substances.

Venoms.—The venom of the scorpion was employed. This poison, whether liquid, or dried and redissolved in water, resisted perfectly the action of compressed oxygen. We know already that the venomous poisons owe their action to chemical substances, comparable to the vegetable alkaloids.

Surgery.

INSUFFLATION AS AN AUXILLIARY METHOD IN SURGICAL OPERATIONS. (*Philadelphia Med. and Surg. Reporter. Ohio Med. Recorder*, June, 1877.)—Unfortunately Esmarch's bloodless method cannot be employed for operations upon the trunk and neck. Dr Montes de Oca offers the following substitution, of which he has frequently successfully made use in the extirpation of tumors. A trocar is first introduced through the skin into the connective tissue in the vicinity of the tumor to be removed, the stylet is withdrawn and the tube of a pneumatic pump connected with the canula, when two or three strokes of the piston will generally be found sufficient to cause the tumor to float on the distended cells. If the tumor be very large it may be necessary to insufflate from two or more points. The precaution should always be taken to compress the tissue at a certain distance from the tumor, in order to prevent the air from passing too far from the tissues. After this preparatory operation is completed, the surgeon cuts the integument covering the tumor with his bistoury, and then terminates the operation with his finger or with the handle of the instrument.

ALTERATIONS OF THE SIGHT IN TYPHOID FEVER. (*L'Union Médicale,* June 12, 1877.)—Dr. Galezowski, of Paris, in a stated meeting of the "*Société Médical d'èmulation,*" read an interesting paper upon the above subject. His observations have been taken during a number of years in the Parisian hospitals and in private practice, but more particularly during the late epidemic, which has carried off so many victims in the French capital. In closing his address he draws the following conclusions:

1. Typhoid fever may have some consecutive visual troubles; among which are, corneal ulcers, emboli of the orbital or retinal vessels and peri-nephritis of the optic nerve.

2. In consequence of the general weakness of the muscular system following typhoid fever, weakness of the power of accommodation can manifest itself, for the first time, in hypermetropic eyes.

3. Ocular accidents in typhoid fever are relatively very rare.

4. To overcome the corneal ulcers the eye should be immediately occluded.

(These ulcers he considers, from the experiments of Hauser, as being caused by an affection of the fifth pair, impairing the nutrition of the cornea. Trousseau believed that they were owing to the constant exposure of the cornea, and hence the treatment which he advised, of closing the lids; but Hauser has shown that necrosis of the cornea will not take place even after section of the [illegible] pair, if the lids are kept [illegible]

In a mor [illegible] advance [illegible]

EXTRACTION OF FOREIGN BODIES FROM THE ŒSOPHAGUS IN CHILDREN. . (*Bull. Gen. de Therap.*, 1877, p. 226. *Phil. Med. Times*, June 23, 1877.)—Dr. Thourmin lays the child face downwards on a table with its head projecting over the edge and sustained by an assistant. Then the finger being introduced to depress the tongue, the coin or whatever it may be glides along the finger of the operator and falls to the ground.

TREATMENT OF CARBUNCLE BY BLISTERS.—(*Gaz. des Hop.*, Sept. 14, 1876. *Med. Times and Gaz.* Nov. 18, 1876).—M. Jules Guerin says that the most efficacious mode of cutting short the progress of a carbuncle and hastening its cure is to cover the whole of the inflamed part with a large blister, having a hole in its centre to admit of discharges. The blister must remain until complete vesication has taken place and any portion of the carbuncle over which this has not been done, will remain hard and resistant. When the blister has taken effect, the pain is at once relieved and the redness and resistance of the tumor disappear and it becomes benign and inert, its enucleation proceeding under the use of ordinary means, without the aid of the bistoury. When after the discharge of its contents, a deep excavation remains, it is useful to apply to the walls a solution of nitrate of silver, with the object of obliterating the open vascular orifices and impeding the absorption of the diseased fluid. (*Abstract Med. Science*, Feb. 1877.)

Editorial.

NOTICE TO CORRESPONDENTS, ETC.—Communications intended for publication, and books for review, should be addressed to " Editors of Detroit Medical Journal, care of E. B. Smith & Co., Detroit."

All remittances of money, all letters on the business of the JOURNAL, pertaining to subscriptions or advertisements, should be addressed exclusively to the publishers, E. B. Smith & Co., corner Fort and Griswold Streets, Detroit, Mich.

Original Articles, Reports of Medical Societies, Observations, Correspondence. News, etc., of general interest, are respectfully solicited from every source. Articles should be practical and carefully prepared.

The Editors will not be responsible for statements made over the names of contributors.

A Case of Death following Vaccination.

The following from the *Philadelphia Medical Times*, is of peculiar interest in connection with a case which recently occurred in this city, and which has created considerable excitement among the laity and no little comment among the profession. The case referred to was that of a child which had been vaccinated during the recent general vaccination ordered by the

Board of Health. As usually happens when conclusions are jumped at and opinions are expressed without a proper weighing and consideration of the data presented, there has been a great diversity in the opinions expressed by those physicians who were called to give expert testimony. The facts, however, as collated, go to show that the child was vaccinated with bovine virus and that in about a week after the operation there appeared an eruption which covered the whole or greater part of the body, and which so closely resembled the eruption of scarlatina as to lead several of the physicians who saw the case to pronounce it the latter disease. Others, however, who either did not see the eruption at its height or saw the child after the eruption had entirely disappeared, expressed themselves most unequivocally to the effect that septicæmia and not scarlatina was the cause of death. Not having seen the case we are not prepared to give an opinion as to the correctness or incorrectness of either of these diverse views, but cannot refrain from inclining towards that which refers the cause of death to septicæmia, and the quotation which we make below, we think, goes no small distance towards corroborating this view. The testimony, moreover, as given at the coroner's inquest, fails to show any possible source of contagion for scarlatina, unless possibly the vaccinator's knife could have carried it; at all events there was no scarlatina in the immediate vicinity or indeed in that quarter of the city. With the thermometer in the nineties, unless more than ordinary precaution was observed to keep the virus from undergoing change and the knife free from decomposing matter, we do not think it at all impossible that septicæmia was the cause of the child's death:

M. Terrillon (*La France Med.*,) contributes notes of a case of this kind, to which are added reflections on the conditions in general. He cites Verneuil as giving the following conclusions in a work published by him in 1868. 1. In pyæmia the skin may become the seat of various eruptions. 2. This symptom is rare, judging from the silence of authors. 3. It is the herald of approaching death. Braidwood, in his work on pyæmia, published the following year, gave considerable space to a description of these [illegible] particular stress upon a variety resembling erythema. It is characterized by a redness of the skin invading the limbs and trunk, and of a bright red color. After having lasted five to eight hours, it disappears. In general it shows itself on the third to fifth day after the first chill. This eruption corresponds with the scarlatiniform rash of the French. Various other authors subsequently published cases, an analysis of which shows, according to M. Terrillon, that these eruptions may be classed under two heads; one class supervening upon surgical operations, especially those performed about the urinary passages. These are very various in form, ranging from simple erythema to the most marked pustules. The other class appear in the course of purulent infection or septicæmia. The latter are less various in appearance, the scarlatiniform variety being most common. T.'s case, of which notes are given, was that of a man who had been severely burned. Six days later he had a very slight chill, and on the following day a diffused, raspberry-colored, scarlatiniform eruption appeared on the thighs and abdomen, which spread gradually over the remainder of the body. The temperature, which had increased very slightly during the evolution of the eruption, rose on the ninth day, from which time the patient showed evident signs of pyæmia. The eruption became much lighter toward the end, except in the neighborhood of the trunk, and the patient died on the fourteenth day.

Microscopic examination of pieces of the diseased skin, taken away the evening before the patient's death, showed no signs of inflammatory change—only congestion.

T. considers his case particularly interesting from a prognostic point of view, because the eruption appeared some time before the first sign of purulent infection. The fact of a previous chill having occurred was not noticed by the patient, who only remembered it after questioning. The fact that the eruption appeared the next day after the chill, instead of four or five days, as in Braidwood's cases, is also of interest.

The question of scarlatina need scarcely come up in these cases, since all other symptoms of this affection are wanting. Nevertheless, Terrillon prefers the term scarlatiniform to designate this eruption, rather than erythema, employed by Braidwood, on account of its appearance and mode of evolution. The scarlatiniform eruption described by Forget, Smith and See as occurring in children operated upon during an epidemic of scarlet fever, Terrillon regards as nothing more than the latter itself, unchanged in any essential characteristic. Terrillon concludes with Verneuil that when after a surgical operation or a traumatic lesion a scarlatiniform eruption appears, pyæmia is to be feared. When this eruption has been preceded by a chill, however slight, the prognosis is extremely unfavorable.

J. J. M.

Professor Abram Sager, M. D.

Dr. Sager died at his residence in Ann Arbor, August 6th, 1877, from phthisis, complicated, near the end, with disease of the kidneys and with dysentery.

Born at Bethlehem, Albany Co., N. Y., December 22, 1810, he was educated at the Rensselaer Polytechnic Institute, graduating in 1831. At this school he was under the instruction and inspiration of Professors Torrey and Eaton, men noted in the study of botany and zoology. Thus was developed a taste for these studies, which he cultivated with such eminent success throughout much of his after life. His medical studies were pursued at Albany and New Haven, Conn., under the guidance of Professors Marsh and Ives. He attended lectures at the Albany Medical School and at Castleton, Vt., graduating at the latter institution in 1835. He settled first in Detroit, then he lived for a few years at Jackson, and finally located at Ann Arbor, where he has lived for over thirty years.

In 1838 he married Sarah E. Dwight, daughter of Darius Dwight, of Detroit. Of the eight children born to them, five are now living, three sons and two daughters. In 1837 he received the appointment of chief in charge of the botanical and zoological departments of the Michigan state geological survey. The zoological specimens, which were the basis of his report in 1839, laid the foundation of the present zoological collection in the University museum.

His botanical collections were also important and of great value. The Sager herbarium, now in the University museum, contains 1,200 species and 2,000 specimens. These were collected in New England and the West. He also prepared and placed in the medical museum a valuable collection illustrating comparative craniology, neurology and embriology of the vertebrata. From 1842 to 1855 he was professor of botany and zoology in Michigan University. In 1848 he was appointed to the chair of the "Theory and Practice of Medicine," and in 1850 that of "Obstetrics and Diseases of Women and Children" in the medical department of the University. This latter position he continued to hold till 1875, the last four years as Emeritus professor. For several years he was dean of the medical faculty, and held the position after failing health compelled him to relinquish the work of teaching.

Dr. Sager was a member of the American Association for the Advancement of Science, of the Academy of Natural Science of Philadelphia, and the Academy of Science of Chicago; of the American Medical Association; of the New York State Medical Society and of the Obstetrical Society of Philadelphia. He is the author of a variety of papers in the *Peninsular Journal of Medicine* and Detroit *Review of Medicine*, besides papers in the *American Journal of Science*, and in the Proceedings of the Academy of Natural Sciences at Philadelphia. After the death of Dr. Eaton, he was tendered the presidency of the Rensselaer Polytechnic Institute, but did not accept.

In 1876 Dr. Sager was unanimously elected president of the Michigan State Medical Society. For many years he was an active member of the Board of Education of Ann Arbor.

It will not be forgotten that Professor Sager's success as a teacher was attained in spite of certain natural defects. Neither his voice, his physical appearance or his temperament were favorable to public teaching, yet his other excellencies were such that, although surrounded by teachers possessing the natural gifts that he lacked, he steadily retained his hold upon the students of the University for more than a quarter of a century, until his resignation.

Thus we have recalled some of the leading historic facts in the life of our departed professional brother. His pupils and friends who shall read these lines will be able to recreate a living picture of their old preceptor and friend. One knew him at one period of his life, another at other periods; one knew him in one relation, another in other relations. But in all, his essential character was the same. His industry and persistence alone enabled him to complete those magnificent botanical and geological collections. While a boy he began the study of botany and zoology, and as opportunity offered he continued the study, even late in life. So, too, in his literary work—

persistent study rendered him one of the most profound medical and scientific scholars of our day. No one who ever met him will fail to remember the great modesty that, as a veil, covered his entire life—its thoughts, its words and acts. His sterling integrity and his self-sacrificing devotion to what he regarded as right were never questioned, and we trust they may ever remain a bright beacon to guide the earnest seeker for truth. In his death the profession has lost one of its truest, noblest, and most incorruptible members. L. C.

For facts contained in this notice we are indebted to a number of sketches in the daily press of Detroit.

Memoranda.

Messrs. Wm. R. Warner & Co. gave their entire Vienna exhibit to the Egyptian army.

In the city of Lansing, Mich., the mortality at annual rate in 1,000 for April was 5.32; for May, 10.24; for June, 1.32; for July, 2.53.

On his death bed William Hunter turned to his friend Dr. Combe and said, "If I had strength to hold a pen I would write how easy and pleasant a thing it is to die."

Within two months Professor Bilroth has operated twice for the extirpation of the spleen. The result in each case was the same—spleen removed and patient died.

The Canadian Medical Association holds its annual meeting at Montreal, beginning Sept. 12th. It is expected that the meeting will b[illegible]

The [illegible] the British government at Darjeeli[illegible] fifty tons of the dry bark. [illegible] and other cincho[illegible]

In [illegible]

amoun[illegible]

this is correlated the greater frequency of calculus, gout and aneurism among Englishmen.

The New Orleans *Medical Journal* is to be changed to a monthly of eighty pages at five dollars a year. Its editors have become proprietors. Detroit *Medical Journal* furnishes eighty pages monthly for three dollars a year.

The following named gentlemen delivered their *forty-fifth* course of lectures in the Medical College of Georgia, viz., Lewis D. Ford, M. D., LL. D., Joseph A. Eve, M. D., Louis A. Dugas, M. D., LL. D., and Paul F. Eve, M. D. For nearly half a century they have been active professors.

The St. Louis *Clinical Record* affirms that the professional troubles in Arkansas arose from and live in the unethical, unprofessional practices which prevail among the "resident physicians at Hot Springs." Other facts from other sources tend to confirm the view that the "Hot Springs" keep a very considerable part of the profession at a boiling point.

Alpheus B. Crosby, professor of surgery at Dartmouth and professor of anatomy in Bellevue hospital, died August 9th, from apoplexy, after an illness of but two days. Formerly he had served as professor of surgery in Michigan University and Long Island Hospital Medical College. Aside from his strictly professional acquirements he was noted for his genial manners, and his rare faculty of telling apt stories and making after dinner speeches.

Prof. Nathan R. Smith died at his home in Baltimore, Md., July 3d, 1877. As he was born May, 1797, he was over 80 years old. Since 1824 he has been connected with some medical college as professor of surgery or anatomy. He is well known by his varied contributions to medical literature, especially in the departments of anatomy and surgery.

At its late session the Illinois State Legislature passed acts establishing a "State Board of Health," and a "Medical Practice Act." The Board of Health is to administer the latter act. This latter requires that all persons practicing medicine after

July 1st, 1877, shall either have been in practice more than ten years, or present a diploma to the Board or pass an examination before the Board. Violations of the law are to be met by adequate penalties. For all this work by the Board the sum of $5,000 was appropriated. The secretary only is to receive compensation for his services. It seems to us that if examinations are to be conducted and the entire medical practice supervised by this Board a more liberal compensation should have been allowed. In their main features the acts are good, and we wish them the fullest success. The trouble with such legislation is likely to be that these acts will be so tinkered by coming Legislatures as to become practically useless.

Business Brevities.

DETROIT MEDICAL AND SURGICAL INSTRUMENT WORKS.

A recent visit to our home institutions of the above nature revealed a very commendable spirit of enterprize on the part of their managers. It revealed also the additional fact that notwithstanding the prolonged period of financial depression which has been by no means unfelt by physicians, the patronage extended to our home manufacturers has been quite encouraging.

Mr. Kuhlmann, the veteran maker, has removed to his new and more commodious quarters at 222 Jefferson avenue. Mr. Kuhlmann is too well known to the profession of this state to require any words of commendation from us. His large experience and inventive genius have been of frequent aid to physicians in enabling them to adapt instruments to the anomalous cases which present themselves for treatment. His present stock is complete in its every department, and is scarcely inferior to any of a like nature in the country, and is certainly unsurpassed by any in the west.

The Detroit Ele[illegible] ks is an establishment but recently opened in this [illegible] cated at [illegible] Jefferson avenue, and although [illegible] unmetakable evidences of thrift. The instruments of its manufacture in which physicians are more particularly interested are its batteries for medical and surgical use. It manufactures the Byrne Improved Cautery Battery, which is probably as compact and efficient an instrument as is made. The instrument, however, upon which the manufacturers plume themselves is the Cleland Portable Physicians' Battery, and certainly for compactness, neatness of finish, and combined delicacy and power of the current it has just claims for favorable consideration. The works are superintended by a practical electrician who has his eye open to the wants of the profession, and who keeps abreast of the rapidly advancing science of electrology.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

The Multum in Parvo Dose and Reference Book. By Dr. Henri Leonard, Detroit. Third edition. Revised and enlarged. Tenth thousand; pp. 100.

The previous editions of this little book have received very favorable comment from the medical press, and we have only to say of the present edition that it is an improvement on its predecessors. The fact that the work has within three years passed through three large editions is but another attestation of its worth.

Ziemssen's Cyclopædia of the Practice of Medicine, Vol. XV. Diseases of the Kidney. Cloth; pages, 799. 1877. New York: William Wood & Co.

This volume was prepared by Profs. Carl Bartels and Wilhelm Ebstein. The former occupies five hundred and forty-three pages and the latter the remainder of the book. Bartels is well known for his observations embodied in previous published papers. In the work before us he treats of "Structural Diseases of the Kidneys and the General Symptoms of Renal Affections," of "Diffuse Disease of the Kidneys," including hyperæmia, ischæmia of the kidneys and its results, "Acute Parenchymatous Nephritis," "Acute Parenchymatous Nephritis of Pregnancy," "Chronic Parenchymatous Nephritis," "Renal Cirrhosis," and "Amyloid Degeneration." More briefly Ebstein discusses the remaining kidney disorders. After a careful reading we are inclined to regard this volume as one of the best prepared and most important of the series thus far published. Renal disorders are very common, especially in connection with a large number of diseases. To be able, in any particular case, to read the disease correctly, requires an extensive knowledge, painstaking observation, and profound thought. Lacking such knowledge, observation or thought the practitioner will sadly fail in his work. Those seeking further aid in their study of these disorders will do well to carefully digest the contents of this volume.

We can only call attention to a few of many topics here discussed.

Bartels says it is certain that "the combination of albumen with urine is in every case evidence of pathological conditions." "In every case the explanation of the excretion of albumen by the kidneys must be sought for in disturbances of the processes by which the secretion of urine is itself effected." "The overflow of serum albumen from the blood vessels into the renal tubes of the kidneys will, in every instance, be proportioned either to an existing abnormal increase of the blood pressure or to an altered state of the walls of the vessels or to a combination of both of these causes acting together." "Thus perfectly healthy kidneys, solely in consequence of an altered state of blood pressure upon their vessels, can excrete albuminous urine."

But all diseases of the kidneys do not give rise to albuminuria. Thus in the deposition of tubercle it is for the most part absent. The albumen in localized affections of the kidney is always scanty, evidently because only a small vascular territory admits of its escape, and because the small increment thus added is mixed with the entire product of secretion furnished from both organs.

Respecting the cylindrical objects called casts Bartels says that while they are never shed in perfect state of health they certainly ought never to be accepted as certain evidence of structural alterations in the kidneys, nor, on the other hand, are they always observed in kidney disease. As a rule the appearance of any cast is associated with the excretion of albumen in the urine.

He adopted the view of the earlier authorities, viz., "that hyaline casts originate in the coagulation of some albuminous substance excreted together with the urine."

The slight differences in many casts he regards as brought about by metamorphoses in the casts experienced between the time of their formation in the tubules and the time when they are removed by the urinary secretion. Thus the original homogeneous transparent casts become granular, fatty, etc. While casts indicate renal albuminuria they do not indicate the nature of the causes at work in producing the albuminuria. Still they assist in unraveling such causes. Thus urine which contains a great number of pale or dark red granular casts comes from an inflamed kidney. If we find many undamaged epithelial cells from the uriniferous tubules cleaving to these pale casts and there is an abundance of red or white blood corpuscles and few or no dark granular casts we may conclude that the case is one of acute nephritis. If the dark granular and puckered casts prevail over the pale or hyaline ones the case is chronic nephritis.

Waxy casts indicate a chronic and deep seated renal affection, never being present in recent cases of nephritis nor in transient albuminuria.

The etiology of uræmia is discussed at length and the many theories fairly stated, but Bartels thinks that to solve it we must obtain "further and more minute clinical observations, fuller and more complete analyses of the blood of uræmic patients, more accurate investigations into the chemical composition of the interstitial serous fluids, especially of that found in the brain. Thus we may perhaps prove that symptoms which we have accepted as the results of one and the same cause have been brought about by a variety of different ones." It is certainly established that the symptoms are all caused by some disorder of the urinary secretion and that the title of uræmia is rightly attached to them."

Bartels does not believe that in scarlet fever there is a process of desquamation of the renal epithelium with attendant albuminuria, just as there is a rash on the skin which is succeeded by a peeling of the epidermis. In most cases of scarlet fever albumen never occurs in the urine, nor in the entire course of the disease can one discover either renal epithelium or its fragmentary debris in the sediment of the urine. Still he believes that this post scarlatinal disturbance is kindled by some specific influence. The nephritis which follows scarlatina or diphtheria differs from that arising from cold in that the cases all die or get well in a short time, three months at farthest.

He emphatically states that in his experience when chronic parenchymatous nephritis does not lead to secondary atrophy of the kidney it does not cause hypertrophy of the left ventricle of the heart. If persons die before secondary atrophy begins, there is no hypertrophy of the left ventricle.

With the renal atrophy the general nutrition of the patient improves; cause, the hypertrophy of the ventricle causes a better blood supply to the general tissues.

The clinical and other evidence brought frought forward as illustrating or proving the doctrines advanced are a valuable feature of Bartels work.

Unquestionably it is the best work on kidney diseases that it has been our fortune to meet.

Transactions of the Medical Association of the State of Missouri. 1877. Paper; pages, eighty.

This representative of the profession in the great state of Missouri is composed of just eighty-seven members. Surely we ought to expect a larger membership in such a state.

The papers are mostly short. The president's address, by Dr. Trader, discusses Preventative Medicine, the Social Evil, Medical Education and Medical Ethics. Dr. Higgins treats of Animal Vaccination. Dr. Spencer of Danger to the Middle Ear from the Local Application of Fluids to the Naso-Pharyngeal Space. Dr. Broome of Subcutaneous Division of the Femur. Dr. Richmond of Surgical Dealings with Sphincter Muscles. Dr. Glasgow of Cancer of the Larynx. Dr. Porter of Syphilitic Phthisis, and Dr. Allen of Summer Complaints of Children.

Meteorological Report of Detroit for July, 1877.

BY C. HENRI LEONARD, M. D., OBSERVER FOR STATE BOARD OF HEALTH.

BAROMETER.—Highest, 30.277; lowest, 29.506; range, .769; daily mean, 29.906.

TEMPERATURE.—Highest, 90; this was on the 26th; lowest, 54; (This was on the 7th) range, 36; daily average, 72.5. As before stated,account must be taken of the heat reflected from buildings and pavements, in order to get the *street* temperature. The figures given show the absolute temperature of the air 65 feet from the pavement, with the thermometer sheltered from sun, wind or rain. Some eight or ten degrees more should be added for street temperature.

It has been a *hot* July, although higher temperatures have been recorded than the highest this month; yet the average temperature is from one to two degrees higher than the average of preceding Julys, except that of '76, then the average was ½ degree higher than this month. The hottest July temperature we have had was in '74; the thermometer then registered 97°, yet the daily average was over a degree less than this July. The lowest July temperature was in '73; it was then 50 degrees; though the highest for that year was some four degrees higher than the highest for this year. The daily average that year was 70.5.

WINDS.—Prevailing direction, s. w., as last month, (13 days s. w.). Greatest velocity, 25 miles per hour; total number of miles traveled, 4,203, a loss of some 249 miles over last month. At three observations "calms" were noticed.

CLOUDS.—Cloudy days, 5; clear, 13; rainy, 11; a gain of six clear days over last month, and six less rainy days.

RAINFALL.—Total precipitation, 1.57 inches. The highest precipitation was on the 10th; then .87 of an inch of water fell. It has been an exceedingly *dry* month, less than one-half of our usual amount of rain-fall has occurred. In '73 we had a precipitation of 3.38 inches; in '74 of 3.65 inches; in '75 of 3.73 inches; in '76, 5 94 inches. The rain-fall of last month was over three times that of this month.

MOISTURE.—Highest absolute humidity was at the evening observation of the 28th; then there were 8.66 grains present in each cubic foot of air. The 25th and 26th also had observations when eight (or over) grains were present. These were our "oppressive" days, when every one was growling "O, how hot!" when the fact of the case was we had just as hot weather along the first of the month (the 8th) with some two (nearly) grains of moisture less in the air, and the heat was then not so much noticed. The daily mean of the 8th, 9th, 15th, 29th and 31st was greater than that of the 25th and 26th, the "oppressive" days just noticed. The highest relative humidity was on the morning of the 28th, though the highest "absolute" was on the evening of the same date, when the "relative" was 82 per cent. The next highest "relative" (94 per cent.) was on the evening of the 16th, when the absolute was 7.15 grains. At 13 other observations the "absolute" was higher than this, though the "relative" was much less than 94 per cent.

OZONE.—More this month than last. Greater coloration was noticed on a 24-hour exposure of the test paper was 2; this on the 19th. A thunder (or rather *lightning*) storm that evening. To No. 1 discoloration was noticed on seven other days.

HAZE.—[illegible] 14th and 15th were quite remarkable for this [illegible] noticed [illegible] P. M. observations of the [illegible]

Detroit Medical Journal.

NEW SERIES. Vol. I. } OCTOBER, 1877. No. 10.

Original Communications.

A Contribution to the Study of Medicine.

BY FRANKLIN CHASE CLARK, M.D., PROVIDENCE, R. I.

If the records of exact science be remarkably clear, the origin of the natural sciences is no less obscure. Indeed the very beginnings of natural science are shrouded in mystery. Dogma upon dogma was advanced to interpret new facts, and rules were filled to repletion with exceptions. The pretended powers of an Æsculapius or the jugglery of a Trismagistos furnish no sound basis to any science, much less give laws, but rather serve as cloaks to superstition, ignorance, religious zeal or crime. Yet after the division of a simple god-head into legions of less powerful divinities, it was but natural to give the medical orb a patron saint, or tutelary divinity ; and so we have the worship of Æsculapius, the god of the healing art. From this it follows that many of the simplest phenomena of nature were regarded as the manifestations, good or bad, of some supernatural power, to avert which was to propitiate the god. Such ignorance and superstition the ancient leech was not long in employing to his own advantage.

Let it, therefore, not be asked, in what happy land nor under the auspices of what god the healing art arose, for it must have surely arisen from the necessities of mankind; but let us rather pass over in silence its ultimate causes, free it, so far as we can, from superstition and error, and present it in its true light, in the garb of truth and simplicity—the balm of suffering humanity.

To comprehend clearly, however, the true place of the medical art among modern sciences, it will first be necessary to consider the causes which have chiefly retarded its progress, both in ancient and in more modern times—the difficulties it met at every step. At the same time we shall understand the revolution which overthrew and reconstructed society and changed the whole mode of thought.

To begin with, we must regard medicine as a science wholly experimental. Experience and observation, tradition and the various changes of dogmatism fully show this. For, although the laws upon which medical science is founded are as fixed and indisputable as the laws of metaphysics, yet until all these laws are perfectly understood under every varying circumstance and condition, in every organized being in like circumstances and conditions—not till we understand each individual case of disease under the law, can even experiment and observation sanction an approach to dogmatism.

Ancient medicine was retarded because of the prevailing philosophies which, as many times as they were changed, required a new dogma for the interpretation of the medical philosophy. Philosophy without dogma was an unsolved riddle to the ancients. Philosophy and dogmatism were synonymous terms. Hence in these ancient philosophical doctrines we find causes affecting the vital interests of medicine for centuries—philosophies so engrafted upon the human mind that nothing save a great revolution could effect a change.

For convenience sake we will divide the philosophies which shaped the course of medicine into two kinds, the secular and the religious. The former had for its object the investigation of truth, and prevailed before the Christian era. The latter incorporated the pagan philosophy with its own, for the furtherance of its peculiar religious tenets. The seeds of truth seemed hidden beneath ambition for spiritual power.

The pagan philosophy which will first engage our attention is the Pythagorean. Pythagoras flourished about five centuries before the present era. His doctrine was based upon the idea of the homogeneity of all matter, and interpreted by means of figures arranged in a peculiar manner. Thus he regarded God as represented by the figure 1, matter by 2. So he expressed the universe by 12, because this results from a juxtaposition of 1 and 2. But as the number 12 results from a multiplication of 3 and 4, this philosopher conceived that the universe was made up of three distinct worlds bound closely together and divided into four concentric spheres.* Numbers grouped by threes, or ternaries, were also observed by Pythagoras. Thus everything that had a proper existence was considered to proproceed from the union of three modalities or mere forms. Hence the universe, or *macrocosm*, included three other little worlds.† Man, the *microcosm*, was composed of three, a body, soul and spirit, manifested by three distinct faculties, namely, *sensibility*, *thought* and *intelligence*. This was called a ternary, and each ternary helped to make up the quaternary, or sacred tetrad.

The tetrad, or quaternary, was formed by the figure 1, which represented the essence, or active principle, of all things; 2, matter, or the passive principle; 3, the totality of the faculties; and 4, the plenitude of its essence. The being to which this system was ordinarily applied, was man

I have dwelt thus largely upon the elements of the Pythagorean philosophy because they had such an influence upon the doctrines of ancient medicine. This philosophy spread rapidly over many countries; and the triads and tetrads were incorporated into the medical philosophy of Hippocrates. But neither observation nor experience had a place in the Pythagorean doctrine, and from it may be deduced much, if not all, of that which is occult in medicine at the present day.

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* Renouard's Hist. Med. (Comegys' translation), page 84.

† See above, and page 85.

Before the time of Hippocrates physicians were divided into two classes, namely, the Pythagorean and the Asclipiadans. The first are little known, and were often called periodic. They were the first to visit their patients at their houses, and may be said to have instituted this custom, which prevails at the present time.

The Asclipiadæ (from Asclipios, or Æsculapios) were priestly physicians, who made their temples the resort of the sick. In fine, these temples of the priests constituted the first hospitals. Whenever a patient recovered, it was customary for him, upon his departure from the temple, to write upon tablets kept there for this purpose, his malady and the remedy to which he attributed his cure. Thus it was that a vast number of confused and scattered facts were obtained, by means of which patients coming later to be treated were more or less benefited.

It now only needed some master hand to collect these rude and numerous data and form useful classifications. This was left for Hippocrates, and his labors are more or less valuable, according to the philosophy he accepted.

Apart from the Pythagorean philosophy, Hippocrates taught the doctrine of the four elements (earth, air, fire and water), the antagonism between which caused disease. This constituted the famous Hippocratic dogmatism. But to Hippocrates we chiefly give honor for making nature our guide, and advocating a dependence upon observation and experience, so necessary for success in treating disease. He did not, however, permit dogma to interfere with his study of nature. To this same author we are indebted for the separation of medicine from theology and philosophy proper. Hitherto philosophy embraced all existing knowledges. From the time of Hippocrates, then, medicine dates as a distinct branch of study.

Aristotle enlarged upon the views of Hippocrates, and taught in addition that we gain our knowedge only through the senses; that is, by observation. Plato, on the other hand, gave reason the preference. But the two agreed in this, namely, that our thoughts are "mother ideas," that is, collections of facts, from which we are to separate individual facts. Thus, when we conceive of the horse, for example, we do not conceive of the species nor of a single individual, but of the genus. We gain an idea of the species by deduction, or separation of members.

Dogma after dogma now sprang into existence. The new philosophies served rather to amaze than enlighten man. In this period we may not without reason place Galen, the prince of dogmatists.

In reviewing this period we may regard Plato and Pythagoras as representing the pure dogmatic school; Hippocrates and Aristotle the natural method, though both failed to establish pure inductive reasoning.

While the elements of Platonism and Aristotelianism were thus at variance, the Christian church entered the lists and took part in the struggle under the name of Scholasticism, and shortly gained the day; for her weapons were sharp, and she not unconscious of the fact.

The Church adopted the realistic school, and being in the ascendant, made all philosophy conform to her theology. It is very hard to determine in what scholasticism consisted. It was certainly not pure Aristotelianism, for that, to some extent, depended upon observation and experience. In his History of Medicine Sprengel cites three elements of scholasticism which more or less shaped medical philosophy, namely, the Platonic or neo Platonists, the Aristotelian, and the Stoic doctrine. All these reacted upon medicine. The Church, however, siding with the realists, thus continued in the ascendant from the beginning of the eleventh century to the fifteenth and part of the sixteenth, and constituted one of the darkest and saddest chapters in the history of human civilization.

The nominalists were always opposed by the theologians of that period, and produced greater influence in Germany than in France. Now what is very curious is that the great opponent of scholasticism was afterward born in France where the system was always less dominant, and there even he gave it its death blow.

Again, since these doctrines were sanctioned by the Church, they demanded of men implicit obedience, even a blind faith. For to enter upon any new field of observation, to study truths for one's self, to doubt authority, was equivalent to the invention of a new philosophy, and to devise a new doctrine was death to the old. And this, it was proved, would be destruction to the hierarchy. Hence every by-way and avenue of thought was strictly guarded, and superstition and force used to control the mind and further the interests of religious dogmas. And this control of temporal affairs by the dominant church lasted for over a thousand years; and each dogma and even every letter, was written and steeped in human blood. To show this power of authority and tradition in the ruling party more fully, history cites the case of a physician who lost his life because he ventured beyond the pale of prescribed method of cure, and this even after the recovery of his patient. This may seem an extreme case, but it is none the less well authenticated. Scholasticism rendered all other modes of thought heresy; and heresy was a capital offense, punishable by death.

Thus far we have seen the great laws of nature enforced by the teaching of Hippocrates, forgotten or set aside. Theories and systems now became the chief means of studying and treating disease, no matter how quaintly, absurdly or untruly they interpreted the malady. It was a period of novelties; a transition age, as M. Renouard not improperly calls it. Charlatans outnumbered the regular physicians.

But the world did not remain long in this lethargy, even if sanctioned by the Church, and that again by authority and tradition. The mind of man at last awoke; the long-hoped-for reformation was at hand.

The Renaissance, or the revival of learning; the failure of zeal in seeking the Holy Land at the instance of some zealous prelate; the great reformation in the Church itself in almost every Christian country; the rise of the natural sciences, especially chemistry and physics, all conspired in bringing about the immense results of the reaction which affected the human mind.

Bacon, in England, once more revived the study of inductive philosophy based upon observation and experience; Descartes, in France, gave scholasticism its death blow; Kant made his name famous throughout all Germany and the world by his principles of philosophy, which viewed all knowledge as gained only through phenomena—by the senses, and thus the absolute as beyond our ken; while Herbert Spencer, of our own day, considers comparison as the only means by which we may know anything, and that knowledge even then is but relative.

Newton but followed the inductive method of philosophy when he made the discoveries which made him known to the world as the father of physics; and by the same method Lavoisier constituted chemistry a living science.

After the wave and agitation consequent upon the great revolution in society had somewhat abated, the progress of the natural sciences became as markedly rapid as hitherto slow. Medicine, too, received new life, for it depends upon the growth of the natural sciences for its own strength. At this period medicine began to number again its masters in the science; and to-day the prospect for the healing art is most bright.

The causes which retarded the advance of medicine in ancient times may be regarded as the same which made the science so little cultivated among the oriental nations, who are to-day so impracticable and immobile. To be sure no period in the history of medicine was brighter nor more enviable than when the science was under the domination of the immediate successors of Mahomet. But the medical schools of Arabia lost at last their lustre, and sunk into obscurity under the government of the Turk. The same spirit of intolerance in religion, as in thought, was sadly but too truly exemplified even here. The Moor, on the other hand, was by far more advanced and tolerant than the Catholic, but even his fate was sealed, and with it the progress of medicine among the followers of Mahomet in Europe. In this latter case we note an exception;

for had Ferdinand and Isabella, and their ferocious son, Philip, but stayed the arm of persecution, Spain would have been all she was once pictured, and Granada the great centre of the medical art.

Not to delay longer upon this sad chapter not only in the history of medicine but in the history of society, we will consider what ancient medicine bequeathed modern physic, and thus be able to appreciate its value.

Ancient medicine left

1. Strict analogy founded upon premise and syllogism of too arbitrary a nature to withstand much examination.

2. Dogma to strengthen a complete analogy.

3. Authority and their tradition to maintain dogma.

4. Theories and systems upon which to found the causes of and the cure of disease.

But modern medicine made the following changes:

1. Instead of dogma it adopted empiricism, or experimental philosophy; the inductive method rather than the deductive.

2. Analogy so far as it does not conflict with observation and experience.

3. Tradition and authority so [illegible] they do not oppose original investigation, and can stand [illegible] of proof.

4. Medicaments are given to as[illegible]rce, nature.

It is everywhere held that a scien[illegible] exact, must be susceptible to every manner of proof; [illegible] instead of admitting, must exclude all exceptions. [illegible] law has no exceptions; the moment an exception [illegible] the law ceases to be a law. [illegible]dicine allo[illegible] physician may become d[illegible] the history, [illegible] but too well the resu[illegible] empiricism.

Analogy was a dog[illegible]med phenom[illegible] stood. To be sure, anal[illegible] the certitud[illegible] icine, to a certain extent. [illegible] similarity, [illegible] toms can only be followed wi[illegible]. For disea[illegible] often appear similar, though not [illegible] we do [illegible] derstand all the conditions and circ[illegible]ly. [illegible] circumstances, then, must be admitted, jective, which more or less influence the effect of medicaments; and it is only by individual experience that we can arrive at pure analogy, which is, perhaps, impossible. But when we use analogy we must take into consideration all these. Whether there ever were two cases of disease identical remains still to be shown.

Among the subjective symptoms let us note idiosyncrasies, or the greater susceptibility to different medicaments; and these, again, modified by age, sex, condition, and the (so-called) temperament. Some are unable to take certain drugs in suitable quantity to affect the disease without harm to themselves, as opium, for instance. Others have been known not to be injured by even poisons (not caustic). Old age and youth and the female sex require less medicine than a full grown man; and there are other exceptions equally curious and interesting.

The objective conditions include such as hygienic influences, climate, temperature, wet or dry, removal from exciting causes of disease, and removal from whatever may excite the patient and render him alarmed or depressed in mind.

Authority and tradition are too often appealed to, even to-day, when a new remedy is to be tried or some new method of cure proposed. Professional jealousy should have no place in medicine, and call upon authority and tradition should be made but to sustain what may be of some use. I have no reference to systems in medicine which can easily be shown to be false and retrogressive in their nature; but to such modes of cure as acupressure, the use of ether or chloroform in surgical operations. These met with great opposition at first, and they all, though not adapted for every case, may be useful in enough to warrant their [illegible] by the profession. Any remedy, then, which can [illegible] harm (or rather, when the harm is but small in comparison [illegible] good done) should be gratefully received when we [illegible] be it even so little.

[illegible] the fourth topic under discussion we shall speak [illegible]

[illegible] experience only, that certain ef- [illegible] quantities of certain medicines upon the economy. This is also observed in various quantities of the same drug. After this general division we subdivide remedies again according to parts affected; 29 drugs relieving pain we term anodynes; to provoke vomiting, emetics or vomitives. The smallest number into which drugs are divided are termed *specifics*, that is, medicines which only cure, or tend only to cure, certain diseases; in other words, certain diseases seem to be amenable to treatment by certain drugs only.

Diseases are likewise classified according to causes or regions. And in the same way we deduce one class of specific diseases which seem more numerous than their remedies.

And in the treatment of disease at the present day we practically follow three courses, namely: 1. Diagnosticate the disease. 2. Avert all exciting causes, and follow strictly all that which may be for the well-being of the patient. 3. If *necessary*, administer drugs.

And now we come to the different modes of administering medicaments.

The *perturbative* method, as it is called, occupies the first though lowest round in the treatment of disease; and whether it deserves a place in medicine is a question. The old time-honored physician only speaks of *developing* a disease by means of physic—of making the symptoms disclose themselves so that he can diagnose the malady. It is as difficult to prove the virtues of perturbation as the actual curability [illegible] drugs in the vast majority of cases. So that with [illegible] we will consider this mode of treatment as one of [illegible] arrogancies of past ages.

In the *expectant*, or [illegible] interfered with. It is [illegible] chiefly gets the reputation [illegible] cessity of watching symptoms [illegible] imen and diet.

That numbers of sick recover [illegible] not to be denied, and whether [illegible] two thousandth attenuations are [illegible] makes a good recovery. Again [illegible] good in certain cases, wherefore, in the majority of cases the expectant mode of treatment is all that is required. Even in cases where ignorance of the worst kind is allowed to tamper with the disease, the patient recovers, and the ignoramus gets as much credit as the skilled physician. Now, therefore, when we have the inutility of medicines in such cases manifested before our eyes, it savors too much of the charlatan and miracle worker to prescribe unnecessarily. We see too much of this vile practice around us to let us even approach it. And where strict regimen and proper diet, with an occasional administration of an anodyne and the like are only called for, surely should we ever desire to drench the patient's system with overdosing?

In the third, or *analytic* mode, we separate the disease into its different elements, and one or more symptoms are particularly treated. In inflammatory diseases, for instance, we diminish the pressure of the blood, whether in brain, lungs or elsewhere; that is relieve the congestion. In all the after treatment we follow the expectant method.

The analytic method is only indicated when no specific remedy for the affection is known. But Renouard has an idea that this method leads too often to arbitrariness on the part of the physician, since each element into which the disease is divided will be interpreted according to some system of philosophy favored by the physician. Besides, other intricacies present themselves which often make the analytic method very difficult to follow.

The last, or *synthetic* method, has been termed the noblest, and *the* mode for which the physician should reserve all his skill. Here the symptoms of the disease are taken as a whole and attacked "en masse."

Yet our specific diseases are so many and our specific remedies are so few and feeble, that the physician but too often finds his skill baffled and his confidence in medicaments shaken. Mercury and quinia especially, have been termed specifics. [illegible] whether mercury really deserves its name of specific is still [illegible] question. True, it exerts a wonderful influence in [illegible], but its permanent curability is not fully recognized. Vaccination is a prevention rather than a specific. Potassium iodide is, singularly enough, called an alterative, together wito arsenic and mercury, but *how* it becomes an alterative is but conjectural. However, as the medicaments become further studied the physician may hope to advance more in the understanding of this method and give more hope to diseased posterity.

Upon comparing century-worn pharmacopœias with the works of modern times on kindred subjects, one is immediately struck with the fact that nauseous remedies, whether of an animal or vegetable origin, give place to ones less obnoxious and less numerous. Therefore the modern medical student has not before him such an array of substances as his forefathers. Chemistry, by its opportune rise, gives us far more elegant preparations for administration, and philosophy a better mode to apply them. Physicians prophesy a still further diminution in the number of medicaments, as may be proved by comparing the prescriptions of the last century with the remedies of to day.

In an old medical work, published in London as long ago as 1711, and used as a *vade mecum* by students and practitioners generally, is the following prescription for the cure of stone. I give in its original spelling and crudeness:

"Take Blood of a Goat, four or five Pound; the urine of a healthy young Lad and of a Goat, of each five or six Pints; Wood-Lice, bruised, three pints; Seeds of Parsley, Commin, Juniper Berries and black Radish Roots, of each four ounces; Winter Cherries, number sixty or seventy; Herb arsemart, Parsley, Leaves of Birch, Rue and Burdock, of each two Handfulls; Juice of Birch, Arsemart, Fenil and Wild Tansey, of each one Pint; digest these together in a warm Place for four or five days. Then distil and draw off a Gallon or five Quarts, which keep close stopped for use. Of this Liquor give two ounces with the like Quantity of good White Wine, every Morning, Noon and Night."

This remarkable prescription without doubt, produced some, if not the desired, effect. That better times were coming in this country, as well as abroad, may be seen by the MATERIA MEDI-

CA, published by Murray in Philadelphia, in 1808, a hundred years later, and nearly three-quarters of a century ago. *Crab's jaws* and *claws*, *stag's horns* and *potato flies*, now dismissed, were the most objectional medicaments that flourished at that period.

In the Pharmacopœia of the Massachusetts Medical Society, published in Boston in 1808, we have one hundred and thirty-nine (139) articles mentioned, namely:

Of mineral origin, 34.

Of vegetable origin, 93.

Of animal origin, 12, or about 5 per cent.

In Thacher's Dispensatory, 2d edition, published in 1813, the articles of animal origin are about 16, or 5.9 per cent.

In the first Pharmacopœia of the United States, published at Boston in 1820, and founded upon the Pharmacopœia of the Massachusetts Medical Society and of the New York Hospital, we notice two hundred and eighty-eight (288) articles. Of these there were, namely:

Of mineral origin, 42.

Of vegetable origin, 234.

Of animal origin, 12, or 7.2 per cent.

The second Pharmacopœia does not differ in any respect from the last mentioned, although published in 1828.

The third, or second revised edition of the U. S. Pharmacopœia, I was unable to obtain for 1840. But on analyzing 1,000 consecutive prescriptions, written in the years 1845 and 1846, I find very few drugs in actual use; perhaps no more than we use at the present day, excepting, of course, the new remedies. Of the articles mentioned tonics and anodynes occupied the first rank, as usual. Oxide of bismuth was used where we employ the subnitrate; antimony occurs in some form thirty-seven (37) times, or 3.7 per cent. Castor is mentioned but once; cochineal twice; cantharides twice for external application and twice for internal use. Hence animals furnished, according to this account, but a small proportion of the medicaments then in use.

The U. S. Pharmacopœia for 1850 contains three hundred and fifty (350) articles. Of these there are, namely:

Of mineral origin, 48.

Of vegetable origin, 281.

Of animal origin, 21, or about 6 per cent.

The 1860 revised edition comprises three hundred and eighty (380) articles:

Of mineral origin, 60.

Of vegetable origin, 300.

Of animal origin, 20, or about 5.5 per cent.

The 1870 revised edition of the Pharmacopœia includes four hundred and two (402) articles:

Of mineral origin, 76.

Of vegetable origin, 307.

Of animal origin, 19, or about 4.73 per cent.

In the foregoing analysis we observe a gradual increase of mineral medicaments, a rapid increase of vegetable remedies, and a slight increase of those of an animal origin. This latter is due to the recent discovery of glycerine, of which a large proportion of prescriptions are made up; and also of cod liver oil. For this last remedy, though less obnoxious than many others of ancient times, we even now often advantageously substitute cream, oils and fats.

That castor, musk, cantharides, (at least as an internal remedy) cochineal and oyster shells need no longer disgrace our pharmacopœias may be seen from a careful analysis of five hundred (500) consecutive prescriptions dispensed by one of our most prominent apothecaries during the winter of 1873 and 1874. Among the remedies in these prescriptions, castor, musk, and oyster shells receive no mention whatever. Cantharides is noticed as an epispastic. Indeed, but four animals are represented, namely, Spanish flies, cod liver oil, glycerine and adeps, the last of which no one proposes to dispense with.

Of the four hundred and two (402) articles of the Pharmacopœia of 1870, only 134 are mentioned in these 500 prescriptions, and these more than once. Of these there are, namely:

Of animal origin, 46.

Of vegetable origin, 84.

Of animal origin, 4, or 3 per cent. in actual use.

Iron stands 119 times; opium in some form, 105; cinchona and quinia, 68; nux vomica, including strychnia and iodide of potassium, each 42; bromide of potassium, 38; subnitrate of bismuth, 34; pure alcohol and hydrate of chloral, 9 each; antimony, 9 times, or but 1 per cent.; cod liver oil and phosphorous but once each. The waters (including *aqua pura*, flavoring extracts and essences, syrups, etc.), occur more than anything else, 204 times, or 42 per cent. This shows that nearly half of what was prescribed was simply water and flavoring syrups. Hence the number of remedies in actual use is very small, much smaller than it would appear at first sight. Opium, quinia, and iron still remain, and will, for a long time to come, be the sheet anchor of the physician.

Now after considering what remedies are actually employed, and what could easily be dispensed with, let us consider our last topic, namely, how far we are to assist nature by the employment of remedies. The essentials in the treatment of disease are three, namely:

1. Prevention of disease. Vaccination, as numerous statistics show, has rendered small-pox not only less virulent, but also less liable to occur in the individual so treated; and possibly it may be the means of exterminating the disease altogether.

Prevention of disease depends, however, to a great extent, upon a knowledge of the causes of disease, and also of hygiene. When a great epidemic once appears no swift remedy has been found to be of any avail, except, perhaps, in the very first stages of the disease. But if a city be but prepared for the visitation by a strict observance of laws of hygiene established by a medical police or sanitary board, either the epidemic loses its force as it advances, not having centres of growth enough from which to spread, or it passes by that part of the country altogether. As the morality of cities now stands this can be but approximated. But if even this slight approximation is so conclusive, what might we not expect from a full compliance with sanitary laws? And these are nature's laws. It is only by a disobedience of these laws that so much misery has been entailed upon poor suffering humanity. The general filth and squalor of the Mohammedan worshippers at the tomb of their disciple have without doubt, contributed, if not caused, the spread of the Asiatic cholera. Wherefore the prevention of this disease, as of every other, by a habit of cleanliness and the obedience of the other laws of health does more than drugs, which are only advantageous for a season; only temporary, not permanent in their effects.

2. Modification of symptoms. After a disease has once attacked the system, so to speak, little, in the majority of cases, can be done by the employment of drugs. The expectant mode of treatment only is here indicated, and is in fine, the favorite. The prevention of grave symptoms, if possible, by personal attention to comfort, diet and regimen, is always attended by the most satisfactory results.

3. Actual cure of disease by the use of medicaments. Dr. E. H. Clarke, of Boston, reported once to his class in Materia Medica 105 recoveries from typhoid fever. All these cases he confidently believed would have recovered had he not administered any drugs. Observations of such a nature from so great an authority must be of great value, certainly.

Although specific remedies are few, and the synthetic method of treating disease difficult and unsatisfactory, the chemist and physiologist and pathologist are still busily engaged in studying how actual cure may be obtained. And although this is a matter of solicitude to every intelligent physician, all hope must not yet be given up. Science is but in its infancy, and, as Hippocrates says but too well, " Art is long, our life is short." But we do not expect this great desideratum will be accomplished by one man or by one age. The history of medicine is the history of man, his ills, his misfortunes and his triumphs. Therefore let us aim at a cure in every case, but do all we can in the meanwhile to prevent disease; for here the great and true province of the physician lies, and here the educated man finds that all the natural sciences assist him in these endeavors.

Thus have we attempted to review, but feebly, the history of the healing art, and to show its dependence upon philosophy; how from age to age men arose who gave new life to the science even amid confusion and darkness, and how it has lived through all, and never presented a brighter prospect for good than at the present time. At the same time we have endeavored to show what is the province, the philosophy, of medicine; how it has been shaped from age to age, and how little to its advantage is it to be bound down by sects, exclusive systems and dogmas; for the highest interest of medicine is to gather here and there, collecting the gold and casting to the winds the chaff and chaffer of charlatans and dogmatists.

Hydrobromic Acid in Prescriptions.

BY DEWITT C. WADE, M.D., HOLLY, MICH.

It is not astonishing that hydrobromic acid is suggested so soon after its introduction to the profession as a remedy for many diseases, and in many combinations, for the salts of bromine have been as thoroughly tested by as large a number of physicians as any other known medicine, and have found a place second to few other remedies in value. These salts are undoubtedly generally given for the purpose of obtaining the effects of bromine upon the system; and if hydrobromic acid, in a more exact, scientific and eligible manner, accomplishes this object, it is not unreasonable to suppose that it will rapidly supplant them in the estimation of the intelligent prescriber.

To further call the attention of the profession to the great usefulness of this acid, I am induced to give a few formulas, into which it enters, which I have no doubt will at least have the merit of novelty. It is well known that medicines combined, not chemically, are thus often increased in value, and the convenience of so prescribing hydrobromic acid, if for no other reason, will generally make it preferable to the bromine salts.

I regret that in my paper proposing hydrobromic acid as a medicine, published in the PENINSULAR JOURNAL OF MEDICINE in February, 1875, that I did not give a working formula for its preparation. I gave, instead, a theoretical formula, specifying that each fluid drachm of the finished preparation should represent ten grains of bromine, this being the amount of iodine in the same quantity of the officinal dilute hydriotic acid. Since then a formula has been published containing considerably less bromine, the result of which is likely to cause confusion, both with pharmacists and physicians. I think it proper to here give the original formula from which the first preparation was made, and which I shall now take the liberty of denominating dilute hydrobromic acid.

I.	Bromide of potassium	120 grains.
	Crystallized tartaric acid	153 grains.
	Water	1 fluid ounce.

Dissolve the salt and then the acid in the water, and place in cold water for several hours, or until precipitation ceases, and decant. The results of the reaction are the formation of bitartrate of potassion (cream of tartar), which is nearly insoluble, and sufficiently pure hydrobromic acid diluted with water, each fluid drachm of which contains ten grains of bromine. By preserving this proportion, any quantity can just as readily be made. For forty fluid ounces the following formula is exact enough for practical purposes:

II.	The bromine salt	10 Troy or 11 avoir. ounces.
	The acid	12¾ Troy or 14 avoir. oz.
	Water	40 fluid ounces.

Proceed as before.

The affinity of hydrobromic acid for bases is between that of hydrochloric and hydriotic acids. I have prescribed it most frequently in half drachm doses well diluted.

III.	Dilute hydrobromic acid.	
	Syrup	of each one fluid ounce.

Mix and write—Teaspoonful in water.

This is not unpleasant to the taste, and may be given to obtain the constitutional effects of bromine as usually administered in combination with a base. It also acts like other mineral acids in being tonic, refrigerant, solvent, alterative, &c., and is very useful in the "bilious" conditions, including fevers, where the morbid symptoms recede with the coating on the tongue. I use little else in remittent fever.

IV. Sulphate of quinia,........................15 to 80 grains.
Dilute hydrobromic acid.
Syrup,.......................... of each one fluid ounce.
Mix and write—teaspoonful in water.

This is extremely bitter, and in this respect cannot be improved by other additions. Like other acidulous preparations it is incompatible with licorice. Bromine has the power of modifying, in a marked degree, the cerebral effects of quinine; hence the value of this combination, aside from the alterative and other properties of the acid. In all cases of intermittent fever, I continue an antiperiodic from ten to thirteen days after the paroxysm ceases, and for permanent and other satisfactory results, this combination has proved to be far superior in my hands to any other not containing the acid.

V. Sulphate of cinchonia,..................... 15 to 45 grains.
Dilute hydrobromic acid.
Syrup,.......................... of each one fluid ounce.
Mix and write—teaspoonful in water.

I can discover no difference in the effects of cinchonia and quinine, except that the latter is to be preferred as a stimulant. I prescribe cinchonia because of its cheapness.

VI. Red iodide of mercury,............... .... one grain.
Dilute hydrobromic acid,...... ....one fluid ounce.
Fluid extract of orange peel.
Syrup,................ ....of each four fluid drachms.
Mix and write—teaspoonful in water.

The iodide of mercury is decomposed, the bromide being formed with the elimination of the iodine in the form of hydriotic acid. Mercury may be given in this manner for a long time without producing ptyalism, the salt being rapidly excreted.

VII. Fluid extract of ergot.
Syrup, ... of each four fluid drachms
Dilute hydrobromic acid, ...one fluid ounce.
Mix and write—teaspoonful in water.

I do not believe that any other combination equals this for efficiency in cases of cerebral hyperæmia. It is not only indicated where venesection would appear beneficial, but it may be administered by enema in a case of intercranial hæmorrhage, with the likelihood of arresting the transfusion, by capillary restriction, when an additional depletion of the arterioles, by artificial abstraction of blood, would still further endanger life without influencing the hæmorrhage, and is consequently positively contra-indicated.

Ergot and hydrobromic acid will be found to be promptly useful in the vertigo of plethora, with confusion of ideas, or where a determination of blood to the brain is prone to occur from other causes.

VIII.	Fluid extract of stramonium	160 drops.
	Dilute hydrobromic acid.	
	Syrup,	of each one fluid ounce.

Mix and write—one-half teaspoonful in water, the dose to be increased until the specific effects of the stramonium are marked, and there to be maintained.

I offer this combination as a prescription for epilepsy. I will simply say of it, that its effects in this disease are remarkable, and I think I have reason to consider it superior to any other plan of medication.

IX.	Tartar emetic	2 grains.
	Denarcotized tincture of opium	2 fluid drachms.
	Dilute hydrobromic acid,	1 fluid ounce.
	Syrup, to make	2 fluid ounces.

Mix and write—teaspoonful in water.

For acute or chronic bronchitis.

X.	Syrup of bromide of iron,	4 fluid drachms.
	Bromide of quinia,	16 grains.
	Dilute hydrobromic acid	1 fluid ounce.
	Syrup,	4 fluid drachms.

Mix and write—teaspoonful in water.

The wide applicability of this tonic is readily suggested by its composition.

XI. Sub-carbonate of bismuth,.............80 grains.
Dilute hydrobromic acid,..............1 fluid ounce.
Dissolve and add
Saccharated pepsine,..................80 grains.
Syrup, to make...........................2 fluid ounces.
Mix, filter and write—Teaspoonful in water.

This is preferable to ammoniated citrate of bismuth with pepsine, because it is not only permanent in the bottle, but it is not precipitated in the stomach, as is the citrate. Its indications are evident to the professional reader. To it may be added pancreatine, with or without the pepsine.

I trust I have shown by the foregoing formulas how readily bromine may be exhibited in an elegant manner, combined with other well known remedies. These formulas, however, are only intended as skeletons, upon which a great variety of changes may be rung to suit the "notions" of the prescriber.

Elixirs instead of syrups may be substituted, and additions of flavors may be made to render the medicine more palatable. The doses given are for adults, and the frequency of their repetition in each case is to be determined in accordance with the circumstances.

Sedation is an indication in almost all diseased conditions, not only as a palliative, but to finally obtain radical results, by the greater curative efforts nature may make in the absence of irritation, aided, if necessary, by artificial means. It is no surprise, then, that the only known mineral sedative, being also a powerful alterative, should have found so prominent a place in the medical art; yet taking into consideration the facts that the salts of this drug are the preparations of it almost universally prescribed, and that they must be decomposed in the stomach and hydrobromic acid produced before the effects of bromine can be obtained in any case, and that these salts cannot conveniently be combined with other medicines, it is an easy matter to gain the impression, that in the light of our present knowledge, there are too many who follow a very clumsy and unscientific method of exhibiting one of our most valuable therapeutic agents.

HOLLY, Mich., 14th Aug., 1877.

Glycerite of Kephaline.

BY H. E. ASHMEAD, M.D., PHILADELPHIA.

There is a strong tendency to seek remedial agents in animal organisms, and the favor those already produced have received from the profession indicate that good results have followed the use of them for the cure of disease. Pepsin is now so generally employed that it may be regarded as an accepted agent, whose efficiency is above question, and which is placed in the time honored list. No physician would think of combatting aberrations of the digestive functions without seeking its good offices.

Isolated pancreatic juice has more recently sought professional endorsement. To Dobell the credit belongs of having first presented it to the profession. Its value is not so well determined as that of pepsine, and yet there is but little doubt that it is an excellent addition to our list of remedial agents. Admitting, as we must, that pancreatic juice is decomposed in the stomach by the acids, nevertheless it does not necessarily invalidate its use, because it will emulsify the fats and oils before they are taken into the stomach, and in consideration of the facts that the fats and oils previously emulsified pass through the stomach in a condition ready for appropriation, pancreatine, by previously emulsifying these, may prove exceedingly valuable in certain morbid conditions of the system. Ptyaline has been introduced as a chemical to supply the place of the normal saliva, but of its value I am not prepared to speak.

The last and most important attempt to appropriate the products of organic chemistry to the purposes of therapeutical science, is the isolation of protagon from the brain of animals, and wheat and its administration in diseases characterized by general vital deterioration.

Chemical research by Hentier and others, has demonstrated a decided deficiency of protagon in those whose intellectual powers decay, whether prematurely or by the natural changes incident to advanced life. The same deficiency is characteristic in those who destroy their vital powers by natural or unnatural sexual excesses; as also in those who overtax their intellectual powers by brain work. While histological research has demonstrated the relation between brain deterioration and deficiency of protagon, Routh, of London, Tilbury Fox, Tempini, of Italy, and Professor Hammond, of New York, give corroborative testimony that fish, oysters, eggs, and other foods rich in organic phosphorous compounds are efficient agents in the restoration of the absent amount of protagon.

Dr. Charles G. Polk, of Philadelphia, who has spent much time in chemico-histological research, and whose investigations of those dead of tubercular disease seems to determine a direct relation between deficiency of protagon, and the development of tubercular phthisis, says in the August 2d, 1873, number of the *Medical and Surgical Reporter*, that in 1857, while engaged in the chemico-histological study of consumption, that he found that there is always a deficiency of the phosphorized brain principles in the medulla oblongata, cerebellum, and at the base of the cerebrum, and that this deficiency is very strongly evinced in the nerve mass near the origin of the eighth pair of nerves.

Dr. Polk having determined the deficiency of protagon in blood and nerve masses as the characteristic feature of phthisis, conceived the idea that the remedy for the disease was the restoration of the missing phosphorous compounds to the system. Upon analysis of the brain he determined that the protagon or morphological brain principle is hypophosphorous acid of the tribasic variety in union with the alkaline salts, glycerine, olein and albumen.

In accordance with this determination he formed these isolated brain principles into a glycerite, and employed it in diseases depending upon general vital deterioration. The results have been uniformly successful. In incipient phthisis the isolated brain principles have given results far more successful than heretofore accrued from the use of cod liver oil. I have had numerous opportunities of witnessing the employment of both Dr. Polk's protagon and glycerite of kephaline since 1869, and I can recall many cases in which there were very strong evidences of tubercular disease, but which rapidly improved under the use of the glycerite of kephaline. One case, especially, Mr. S., a member of a well known firm of surgical instrument manufacturers. In October, 1869, when he came under Dr. Polk's treatment, he was an apparently hopeless case of phthisis. He was placed on glycerite of kephaline, and in six months was apparently in the enjoyment of good health. Since then I have been a witness to equally satisfactory in several dozen cases, and there is no doubt in my mind but that it is a very important contribution to the therapeutics of this malady.

To claim that it is a specific for tubercular consumption would be claiming too much. It is not entitled to such a reputation, and the attempt to exalt it to this position will prove unsuccessful. Its value consists in restoring back to the system the alkaline hypophosphites which are deficient in the blood and nerve masses, and thus restoring the integrity of the functions to which these are so indispensable, namely, the generation of the nerve force transmitted for digestion, assimilation, nutrition, and respiration through the eighth pair of nerves.

Without venturing into an extended analysis of the pathology and ætiology of tubercular disease, there are a few points right here suggested to which it may not be irrelevant to allude. The lesions which characterize phthisis are mainly lesions of these very functions. Pancreatic deficiency, which Dobell supposes to be the developing cause of the disease, the primary lesion from which the other lesions accrue, is but an expression of impaired function of the excito-nutrient nerve system. Duodenal dyspepsia, so accurately described by Jas. Clark, and which he declared to be the earliest symptom of tubercular trouble, is in a large measure a consequence of pancreatic deficiency, and depends upon the acid condition of the small intestines, which Bennet regarded as the immediate agent in the production of most of the lesions essentially connected with the malady, as the more than neutralization of the normally alkaline pancreatic juice, and consequent interference with the emulsification of the oleaginous constituents of the food, whereby an excess of the albuminous portion enters the blood, while the carbonaceous portion is in a great measure lost by not being prepared for assimilation.

In consequence of deficient emulsification of the fatty elements, butyric fermentation takes place, and the acid condition so graphically described by Bennet is produced. It thus appears, and sanctioned by high authority, that tubercular disease, or rather the development of the tubercle, is the immediate consequence of mal-assimilation and deranged nutrition; but mal-assimilation and deranged nutrition are but consequences of an anterior cause. The anterior cause must be sought in the nerve masses from which the abdominal viscera derives its nerve influence. Thus we are brought to the pneumogastric, the medulla oblongata, and the cerebellum. It is in these Dr. Polk found that the hypophosphites are uniformly deficient. If the great determining cause be in a deficiency of the hypophosphites in these nerve masses, the rational indication would be their restoration.

Churchill, of Paris, who is, I believe, justly regarded as the author of the phosphorous theory of consumption, as early as 1857 contended that the disease originated in a deficiency of phosphorous in the system in an oxidizable form, but he did not make any chemical analysis to determine the location or formula of the missing element, consequently we must infer that he arrived at his conclusions entirely on theoretical grounds, while Dr. Polk based his conclusions on actual chemical analysis of the blood and brain of those dead with phthisis.

Dr. Churchill introduced into medical practice laboratory-made hypophosphites of calcium and sodium, while Dr. Polk first isolated and employed brain hypophosphites in the treatment of tubercular consumption, and the success he has had with his glycerite of kephaline and Lœflund's extract of malt indicates a decided superiority of this treatment over that usually employed by physicians.

In other cachectic and devitalized conditions of the system the results with these agents exceed those derived from the usual tonics and alteratives. In nerve and brain exhaustion glycerite of kephaline is without a rival, no agent compares with it. In impotency it is almost a specific in the absence of organic defect. The dose is about fifteen to twenty drops, given with malt vegetable tonics or in water, three times a day.

The following is the formula:

℞.	Isolated cerebrate or hypophosph. of ammonium,	8 parts
	Isolated cerebrate or hypophosph. of potassium...	3 parts
	Isolated cerebrate or hypophosph. of calcium....	8 parts
	Isolated cerebrate or hypophosph. of magnesium..	3 parts
	Isolated cerebrate or hypophosph. of sodium.....	8 parts
	Glycero hypophosphorous acid (isolated).........	5 parts
	Cerebric acid........	5 parts
	Pure glycerine..	60 parts

The hypophosphites are isolated almost chemically pure by macerating protagon in bisulphide of carbon and precipitating at a low temperature. The hypophosphites thus obtained are very soluble in the mixture of the glycerine and the acids. The preparation is almost as clear as the glycerine and has an agreable acid taste. At present it is only manufactured by A. C. Dung, of New York City. The writer is in no manner concerned in its production or sale, and consequently cannot answer individual inquiries.

No. 807 S. 21st st.

The Pessary in the Treatment of Uterine Displacements.

EXTRACTS FROM A PAPER READ BEFORE THE UNION MEDICAL SOCIETY OF NORTHERN MICHIGAN, BY O. E. HERRICK, M.D., GREENVILLE, MICH.

The uterus, hanging, as it does, in the centre of the pelvis, delicately and equally poised and held in position by its six delcate ligaments from above and by the vagina below, is scarcely calculated to withstand, with its slender natural supports alone, the rough treatment it receives from its modern owner. Indeed it is surprising that it is not more often displaced, and it is not to be wondered at that at least one-third of the women of to.day are suffering from one or more displacements.

It is not my purpose in this short paper to point out the

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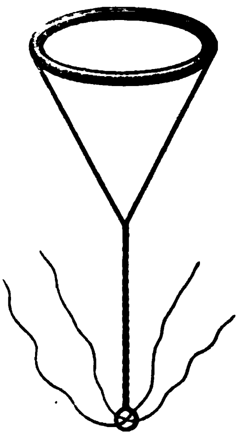
many causes of this trouble (which *might* and *should* be avoided), but to suggest a plan for the treatment of that trouble after it has occurred.

The only support of the uterus from below upwards is the vagina; and that alone prevents prolapse, the most frequent and distressing displacement met with. We believe that the only office of the ligaments is to prevent any displacement sideways, forwards or backwards, and that they have no part whatever in preventing the abnormal descent of the uterus.

This being the case, then, it is quite important that we use no mechanical supports in the treatment of its displacements which will distend the vagina or weaken its walls. A bridge could stand as easily with its abutments knocked from under it as a uterus with its vaginal walls weakened by some instrument which keeps them distended when nature intended them to be kept in contact. There never was a case of prolapse of the uterus without a corresponding weak and lax vagina, and a case can never be benefited by treatment that makes the sole support of that organ weaker instead of stronger.

The plan of treatment I would propose is to hold the organ up to its place by means of a pessary, composed of soft rubber and silver wire. The support is a soft rubber ring with a silver wire stem which is attached to an elastic belt by elastic cords. The silver wire is attached to the ring on each side, and is imbedded into the rubber so that it cannot irritate the mucous membrane of the neck; it then comes down in two arms to about one-third the length of the vagina, when the two wires are brought together and twisted, thus forming the stem, with a little loop of the wire at the bottom for the elastic cords to pass through. These cords and the elastic belt make the instrument both easy to wear and convenient to apply.



The soft rubber ring fits up into the cul-de-sac about the neck of the uterus, and being applied at that point its elasticity prevents both prolapse and version, or flexion, in either direction. A ring has long been considered by leading gynæcologists in this country as the only pessary that does not weaken the vaginal walls. All pessaries have been so far but modifications of the ring. Now the advantage which this instrument presents over others is that it is composed of soft rubber instead of hard, and that by its silver wire stem we have a combination of the ring and stem pessaries without the cup, which both catches the secretions from the uterus and by friction irritates that organ. The stem, also, instead of being so large as to inconvenience the patient by its presence, is only about the size of a small knitting needle, and after a few moments its presence is not even felt; neither does it in any way interfere with the necessities of nature. This instrument is worn by many of my patients during menstruation, which, in my opinion, is pre-eminently the time that it should be worn, whether there be any displacement or not—worn as a safeguard, for many displacements can be dated to some violent exercise during that time, when the organ is much heavier, being gorged with blood.

From the fact that the support is a soft rubber ring instead of a hard one or an irritating cup, it may be worn any length of time without being removed, as it can be cleansed each day with a syringe. It is as easy to introduce as a simple rubber ring, and can be doubled together in the same manner as the latter for that purpose; the silver wire is so flexible that it does not interfere with, and and yet is quite strong enough to hold up, the uterus. Its cost is trifling; it can be made for about one dollar and fifty cents, and any intelligent jeweler can attach the silver wire to the ring.

Ophthalmic Fragments.

BY EUGENE SMITH, M.D., DETROIT.

Ophthalmic and Aural Surgeon to St. Mary's Hospital; Surgeon in charge of St. Mary's Hospital Eye and Ear Infirmary.

DIPHTHERITIC OPHTHALMIA.—Mrs. M., aged 32, came to the Infirmary June 15th with an affection of the right eye. The lids were very much swollen and exquisitely painful to the touch; so hard and painful were they that it was difficult to separate them sufficiently to examine the globe. The conjunctiva was greatly thickened, of a yellow color with here and there ecchymosed spots. The vascular condition was greatly diminished, as but few vessels were seen. The conjunctival and subconjunctival tissues were the seat of an extensive fibrinous infiltration. There was no secretion the first three or four days, but about this time small greyish patches were seen in the conjunctiva, which could be detached, though breaking or pulling to pieces while being separated. This substance appeared like coagulated fibrine. The case was under treatment about six weeks. In an experience extending over more than fourteen years this is the first case of diphtheritic ophthalmia I have ever seen in this country. The rarity of the affection is my reason for reporting it.

The great danger in cases of diphtheritic conjunctivitis arises from the fibrinous infiltration producing strangulation of the cornea by compression of the vessels. This generally takes place during the first stage, before the disease passes into the purulent stage. Cauterization, so efficacious during the second stage of the disease, should never be used during the first period, but iced compresses should be energetically applied till the purulent stage is well established. Corneal complications may be met with atropine, etc.

LIPOMA.—Another rare affection is lipoma of the eyelids. It may be diffuse and resemble elephantiasis, or circumscribed, forming a sharply defined tumor. A case of the latter character came to the hospital for operation in July. It was situated in the left lower lid, a little outside of the lachrymal sac. Its pressure interfered with the flow of tears, which, together with its position in the vicinity of the sac, gave to it the appearance of a lachrymal trouble; and in fact, it had been treated as such before coming to the hospital. In removing it I found that it extended back into the orbit nearly an inch. After removal it was about the size of a large almond. It was easily broken down, and under the microscope seemed made up of oil globules and cellular tissue.

EPITHELIOMA OF THE EYELID.—Mrs. M., æt. 65, came to the infirmary July 10th with an epithelioma of the left lower eyelid, situated in the inner angle, but extending nearly to the median line of the lid. It first appeared some months before as a small pimple or wart, which was irritated by frequent picking till it ulcerated. It then seemed to increase more rapidly in size. It extended through all the tissues of the lid. A large V-shaped piece, including the entire diseased mass, was removed, and the edges drawn together by a hair lip suture. The wound healed by first intention, and for the time being the old lady is free from her trouble.

Epithelioma of the eyelids is a not infrequent affection. It is, in fact, the most frequent of the malignant diseases of the lids. It usually begins, as it did in this case, either as a small pimple or excrescence on the free border of the lower lid at the *inner angle*, though it *may* commence at other points. It is very rarely seen in persons under forty years of age. The best treatment is removal early in the course of the disease. The prognosis is good, I think, if the *whole of the diseased* part is carefully and properly removed. Seven years since I removed the entire lower lid and part—outer one-third—of the upper lid of a Frenchman from Chatham, Ont., replacing the upper portion by a plastic operation. The patient has remained free from the disease, no relapse having taken place.

The supposition that mechanical irritation produces epithelioma affords interesting food for theorizing upon the cause of the affection in the eyelids. How much does rubbing of the lids, together with the increased cutaneous, lachrymal and conjunctival secretions have to do with its formation in this vicinity?

GUNSHOT WOUND OF THE EYE.—July 10th I was called to see Walter B., aged 11, who had received a charge of small bird shot in the forehead at the inner portion of the right eyebrow. He was standing about three feet from the revolver, which was in the hands of a little playmate, when he was shot. I saw him two or three hours after the accident, and found a slight abrasion of the cornea of the right eye, at its inner quadrant. The vitreous humor of this eye was cloudy, giving a slightly reddened reflex. No penetrating wound could be discovered. The lens was normal. The left eye had a small, circular, perforating wound a little to the right of the cornea. The lens was wounded, and there was a bridge or string of a whitish substance extending diagonally across the anterior chamber from the corneal wound to the lens, undoubtedly composed of swollen lens-tissue, and marking the course of a shot. Owing to the cloudiness of the lens ophthalmoscopic examination was *nil.*

I hoped from the position of the parties at the time of the injury, as evidenced by the diagonal appearance of the wound and the nearness of the injured boy to the pistol, that the shot had passed through the globe into the orbital tissue. If such were the case we should probably escape sympathetic trouble.

Four weeks from the time of the accident the right eye had cleared up sufficiently to count fingers at six feet, and to make ophthalmoscopic examination partially satisfactory. The vitreous was still cloudy and contained blood clots, which were being absorbed. A dim view of the optic disc and upper one-half of the retina could be had. The disc was hyperæmic and swollen; the retinal vessels enlarged and very tortuous. I have no doubt the injury to this eye was a rupture of the choroid from *contre coup* caused by the explosion and that improvement will continue till good vision is established.

About four weeks after the injury severe pain "like a toothache" set in in the left eye, the ciliary region became tender to pressure, and the right eye becoming red and watery, I advised and performed enucleation of the left eye. The globe (fresh) was divided at its equator. The retina was partially detached by extravasated blood. There were blood clots in the vitreous. The lens was cataractous. Extending from the posterior surface of the lens through the vitreous to the retina *immediately over a rupture of the choroid,* there was a grey line, distinctly marking the course of the shot, which was found in a clot of blood directly beneath the choroidal rupture.

Twenty-four hours after the enucleation the watery condition and redness of the right eye had disappeared, and again it is in a fair way to recover.

Strychnia Incompatible with Bromide of Potassium and certain other Salts.

BY A. B. LYONS, M.D., DETROIT.

Having occasion recently to dispense a mixture in which strychnia was combined with bromide of potassium, I observed that when the bromide was dissolved in a clear neutral solution of the strychnine, the fluid at once became turbid from the separation of a bulky precipitate, which failed to redissolve on the addition of a few drops of dilute acid. The precipitate, which under the microscope was seen to consist of minute acicular crystals, proved to be a salt—doubtless bromide— of strychnia.

When the proportion of strychnine did not exceed one to two thousand, the crystals separated from the solution only after some time, unless enough of the bromide were added to make a nearly saturated solution. It is easy to see what danger might arise from this behavior of a solution containing any considerable quantity of strychnia.

In fact, my attention was called to the subject by a case of serious poisoning by the last dose in a bottle prepared after the following prescription :

℞. Strychnine....................................grs.ij.
Bromide of potassium..............................℥ij.
Syrup, water, aa...............................℥iv.
M.

This prescription, when first prepared *secundem artem*, forms a clear mixture, which, however, in a short time becomes turbid, and eventually deposits a considerable portion of the strychnia. Hence, if the mixture were not well shaken whenever used, the last dose might well be a dangerous one. I found by experiment that bromide of sodium, iodide of potassium, and even chloride of sodium would cause a separation of strychnia from its solutions. Even so small a quantity of common salt as ten per cent. produced a decided precipitation in a solution of strychnine containing one grain to the ounce.

Nitrate of potassium and sulphate of sodium seemed to have no effect when dissolved to saturation in strychnine solutions of this strength.

The practical conclusion to the physician will take shape in a rule something like this: Never prescribe strychnine in solution in combination with any considerable quantity of any iodide, bromide, or chloride, and if such a combination is prescribed at all, be sure to direct the patient always to shake the vial well before taking a dose of the mixture.

125 Fort street west.

Report on 266 Cases of Vaccination with the "Griffin Bovine Virus" as occurring in Private Practice.

READ BEFORE THE DETROIT MEDICAL AND LIBRARY ASSOCIATION

BY E. L. SHURLY, M.D., DETROIT.

GENTLEMEN:—Since June of last year I have kept a record of about all the cases of vaccination occurring in my practice in which the bovine virus, obtained from Dr. Griffin, of Fond du Lac, Wis., was used, and hereby offer a brief report upon the same.

Before proceeding to statistics it will be well to state in general terms the manner of vaccinating, etc.

The vaccinations have always been made upon a scarified surface, generally one patch, sometimes, however, two, and the operation has been made either with a lancet, a common needle, or a spring vaccinator (Tieman's Spring Scarifier). Considerable care has been exercised always to scarify lightly, and to wait for the cessation of bleeding before applying the "virns," which has been moistened only just before using. No virus has been kept in a moist state, and all virus, when not in use, has been kept in a refrigerator. The lymph used was mostly that stored upon ivory points. It is unnecessary to say that the instruments (excepting needles, which were thrown away) were very carefully cleaned after use upon each person. In most of the cases the operation has been finished by the application of a small piece of isinglass plaster, which I have directed to be removed by means of moisture about the third day after the operation.

Regarding the value of the observations recorded I will say here that all cases embraced in this report were inspected on either the seventh, eighth or ninth days after vaccination—the subject's statement as to success or failure not having been taken.

No case has been regarded as *secondary* which did not show the *characteristic scar* of a previous vaccination, the person's assertion to the contrary notwithstanding. And no case has been recorded as "taken" unless the characteristics belonging to the vaccine vesicle or pustule were apparent.

Of the whole number (266) recorded as having been vaccinated with the "Griffin bovine virus"—from June 1st, '76 to July 1st, '77 (a period of thirteen months)—150 were vaccinated with "lymph," and 116 were vaccinated with "crust."

Of the 150 cases of lymph vaccinations 64 were *primary* and 87 were *secondary.*

Of the 65 primary cases 62 were successfully vaccinated and three were unsuccessful, notwithstanding several attempts were made each time with fresh virus and a careful operation, while of the 86 secondary cases, 33 failed.

Of the 116 cases of "crust" vaccinations, 21 were *primary* and 95 were *secondary.*

Of the 21 primary cases, only one failed after repeated attempts, while of the secondary cases, 38 failures are recorded.

Regarding the ages of these cases, it is noted:

Of the whole number (85) of primary cases 66 were between three months and ten years; 16 were between ten and twenty years, and three were between twenty and fifty years of age.

Of the whole number (181) of secondary cases 18 were between three months and ten years; 46 were between ten and twenty years; 100 were between twenty and fifty years, and 17 were over fifty years of age (one of these being 84 years old). Of this class (over 50 years old) seven (7) were successfully vaccinated and ten (10) were not.

Regarding the kind of instrument used. It is recorded that in (86) eighty-six cases the common thumb lancet was used; in 80 (eighty) cases the spiral spring vaccinator (Tieman's) was used.

In fifteen (15) cases the scarifications were made with the point of the ivory that carried the virus, and in forty-five (45) cases a common needle was used to scarify, and afterwards thrown away—according to the method of Dr. Jas. A. Brown, the president of this Association.

Of the cases of secondary vaccination which failed, eight (8) were repeatedly tried.

Of the whole number, thirteen (13) of the cases "took" only after repeated attempts. Two cases are recorded of a secondary vaccination taking under ten years of age.

Regarding local complications and accidents, it may be stated that very often the crust gives rise to a little more local disturbance than the lymph—a phenomena which may be due to the introduction of pus, &c., with the virus.

It is noted in this record that in thirteen (13) cases more than the usual amount of disturbance took place—such as great swelling and redness of the arm and contiguous parts, accompanied by more or less constitutional disturbance.

Of these thirteen (13) cases eight were vaccinated with the crust and lancet; four were vaccinated with the lymph and lancet; one was vaccinated with the crust and vaccinator.

As nearly as could be ascertained a large majority of the secondary cases had been previously vaccinated with humanized virus.

The foregoing record, as far as it goes, seems to demonstrate

1st. That by far the majority of persons need vaccinating, either because the protecting power of the virus wanes, or because they may not have been well vaccinated at first, i. e., not with very active virus.

2d. That a little more local disturbance seems to follow the use of the bovine crust than the lymph. But as only *nine* (9) cases out of the one hundred and sixteen (116) presented disturbance of a serious character where the crust was used, and only *four* (4) out of the one hundred and fifty (150) cases where the lymph was used, it would seem that the objections urged against bovine virus and in favor of humanized virus, on this account, are *not sustained.* And

3d. That a record of two hundred and sixty-six cases of vaccination with only seventy five (75) failures, and those, save *four* (4), occurring with secondary vaccinations, shows well for the activity of the virus used.

Reports of Societies.

Detroit Medical and Library Association.

Regular meeting, May 21, 1877. President Jas. A. Brown in the chair.

Dr. Eugene Smith presented an eye which he had been called to Marshall to remove on account of sympathetic irritation. He dissected the specimen in presence of the society, and, aside from the general pathological conditions which the doctor described, he found in its posterior wall a segment of bone involving, perhaps, a quarter of the whole inner surface. It was an instance of true bony degeneration of the choroid, taking its start from the capillary layer. The formation, acting like a foreign body, had set up a plastic cyclitis and finally irritation of its fellow eye. The eye had been injured twenty years ago, but the irritation began a few months before the operation.

Dr. McGraw asked if the specimen were not more likely one of calcareous degeneration. If it were true bone, it was a very striking anomaly—an instance of heterogeneous formation without malignancy. It was also remarkable that an epithelial tissue should produce bone tissue, so very unlike itself.

Dr. Smith said the formation was undoubtedly true bone, and under the microscope would reveal bone cells and Haversian canals. It was of comparatively frequent occurrence in the choroid; on the contrary it was never found in the lens, but calcareous degeneration was frequently met with.

To settle the question Dr. Chapoton was requested to make a microscopical examination of the specimen and report at the next meeting.

MR. PRESIDENT AND GENTLEMEN:—The small, firm and osseous appearing tumor presented by Dr. Eugene Smith, at the late meeting of May 21st, disclosed, on microscopic examination, an abundance of bone corpuscles, the lacunæ and the anastomosing canaliculi being extremely well marked.

In the sections made I could not discover any Haversian canals. From the examination made I am not prepared to speak decisively of the character of the growth.

Respectfully,
E. A. CHAPOTON, M.D.

The report made at a subsequent meeting is given above for convenience of reference.

THEO. F. KERR, M.D.,
Secretary.

Regular meeting June 4, 1877. Dr. Peter Stewart was called to the chair.

Dr. Lewitt exhibited the right lung of a patient brought before the society four weeks ago to show, at that time, the results of fistulous empyema. The patient had since died from fatty degeneration of the kidneys. But for the intercurrent disease he might have lived for an indefinite period.

The lung was found to be adherent to the spine and ribs, and to extend from the clavicle to the diaphragm. It was slightly permeable to air, a frothy liquid exuding on pressure. The left lung was healthy except for slight emphysema.

Dr. Johnson exhibited the right kidney of a man recently dead from disease of that organ. Its weight was three pounds and ten ounces. The mass was composed of blood clots laminated with fresh clots outside. The man had a slight fall about five months ago, and from that time began to fail, wasting from 170 pounds weight when the accident happened to 90 pounds when he died.

His theory of the method of formation was that the kidney was first cancerous, and the fall produced rupture of the blood vessels, the mass becoming encysted. The opposite kidney was cancerous with cysts around the border. A gland beneath the stomach, as large as an orange, showed colloid degeneration and the heart showed amyloid degeneration.

No personal history was obtained, as the man was very reticent, and never complained, but simply wasted away until he died of inanition.

The difficulty was not diagnosed during life, as the dullness caused by so large a mass was continuous with that of the liver, and it was thought to be enlargement of that organ.

Dr. Lundy reported a case of paralysis of the right side with aphasia in a man 84 years old. From the symptoms he could not discover whether it was the result of embolism or hæmorrhage. The face and eyes were suffused, pulse 80 and full. He was now improving, and could move the right hand. The cheek does not puff when he swallows. He had been in the habit of practicing masturbation, producing four or five emissions weekly.

Dr. Johnson thought the latter had nothing to do with the paralysis, nor was there any discoverable cause.

Dr. Lundy also mentioned another case of paralysis—a fatal one—in which the temperature remained at the normal until a few hours before death, when it rose to 104°. This was contrary to the recently expressed views on this subject.

THEO. F. KERR, M.D.,
Secretary.

Regular meeting, July 11th, 1877, president Brown in the chair.

The following letter was read by the secretary:

DETROIT, Mich., June 27, 1877.

DR. H. E. SMITH:—*Dear Sir.*—I send you a number of volumes of old medical works from the library of my father, Earl Swift, M.D., late of Mansfield Centre, Conn., and now deceased, with the request that you will present them to the medical society, of which you are a member, and which has, I believe, a medical library under its care. I send them not so much for their intrinsic value to the profession to-day, but I thought they might afford some information concerning medical science and ideas of 100 years ago.

If they shall be acceptable to your society to that extent, I shall feel repaid for my trouble.

My father was born in Mansfield, Conn., in 1784, and spent over 55 years of his life in the practice of his profession there. He graduated at Yale in 1805 and was licensed to practice in May, 1808. He died in his native town in 1869, in his 86th year, honored and beloved by all who knew him. He was for many years a member of the examining committee at Yale.

Yours very truly,

F. W. SWIFT.

On motion the gift was accepted with the thanks of the society, and the letter ordered spread on the minutes of the Association.

The secretary was also instructed to make a public acknowledgement of the gift, which he did in the following terms:

DETROIT, July 19, 1877.

COL. F. W. SWIFT:—*Dear Sir.*—Your generous gift to the Detroit Medical and Library Association of the library of your father, Earl Swift, M.D., lately deceased, was received and accepted at the last regular meeting, Monday evening, July 11th. By a unanimous vote of the association your note accompanying the gift was ordered spread on the minutes, and the secretary was instructed to convey to you the hearty thanks of the society for your very opportune and valuable donation. The works were of a standard character in their time, and show the excellent judgment of their owner in making selections for his book shelves. To-day their dim and musty pages carry us back almost a century and unfold to us the quaint and curious science of those older days.

Be assured that they will be highly prized by us, both as a link that binds the new to the old, and for the pleasure and profit that will be derived from their perusal.

With a reiteration of our expression of thanks, we are

Yours, very respectfully,

THEO. F. KERR, M.D.,

Secretary Detroit Medical and Library Association.

Dr. Reynolds exhibited two kidneys, removed from a patient recently dead, of which he gave the following history:

Saw, on the 26th of May last, in consultation with my brother, Dr. H. J. Reynolds, of Orion, a Mr. Abram Miller, æt. 48, of Brandon, Mich., who dated his first illness at October last, and had, at the time I saw him, been confined to his room about six weeks. His first symptom was shortness of breath on sudden exertion; and this, together with slowly increasing loss of strength, continued till the fore part of April, when his legs began to swell, and he was confined to the house. At my visit his lower extremities and abdominal parietes were very œdematous, but there was no œdema of lower eye lids or face and no appreciable effusion in the abdominal cavity. There was dyspnœa on exertion, but he could retain the recumbent position very well.

He had a troublesome cough, with occasional white frothy expectoration, and there were in both lungs some moist rales; but dulness on percussion was not marked. The area of cardiac dullness was somewhat increased, and the apex was between the fifth and sixth ribs, but displaced outwards as far as the nipple line.

The impulse was considerably extended, and there was a wavy pulsation extending from apex to ensiform cartilage, but not seen over base of heart.

A deep and very plain systolic blowing sound was heard, plainest in a circular manner from the apex rightwards to mid sternum near ensiform cartilage, and thence to right third costosternal articulation.

It did not seem at all superficial nor in any way pericardial, and could not be heard in going a little way from the line just alluded to. There was no pulsation nor distension of superficial veins, but from the character and location of the murmur it seemed probable that there was tricuspid regurgitation, and that the somewhat increased precordial dullness and the extended impulse might be due to dilatation of the right ventricle; and that the other symptoms and appearances might all have their origin from that condition of the heart. But the urine contained an abundance of albumen and a considerable number of both large and small granular casts, and also, what seemed strange while there were no bladder symptoms, there was then and continued to be at each subsequent examination, quite a large number of pus cells.

From the time of my visit till the death of the patient, on June 28th, I am indebted to my brother for the history.

Anasarca increased and there was peritoneal effusion. The precordial dullness extended, and the wavy pulsation was seen over a larger area, and became very marked. Symptoms and signs of pulmonary œdema continued, but dyspnœa was not urgent. There was no coma or convulsions, and loss of vitality was gradual.

The casts in urine became less covered with granular matter, with occasionally upon them small fat globules, and some casts were quite hyaline.

At two examinations about two weeks before death the cardiac murmur was not heard; but it returned, though not so loud, occasionally afterwards.

He died on June 28th, and by invitation of my brothers, Drs. H. J. and A. R. Reynolds, I was present at his autopsy. Both lungs contained serum, but there was no effusion in pleural cavities. The pericardium was largely distended with serum, but there was not much lymph. The left ventricle of heart was considerably hypertrophied, while the walls of the right ventricle were certainly not thickened, and its cavity was not dilated. The semi-lunar and tricuspid valves presented no abnormality; but the chordæ tendineæ of the right ventricle were very much matted with a greyish-white fibrinous looking material, which, with a little force, could be detached by the fingers.

The left kidney was much enlarged, weighing seven and a half ounces. The right was, in contrast, strikingly small, weighing only one and a half ounces, and containing in its pelvis a calculus about the size and form of an ordinary long shaped almond. The ureter was much smaller than the left, and the kidney had in its convex border a smooth edged, white lined opening, half an inch in length, situated immediately over one end of the calculus, the other end being toward the ureter.

The glandular structure had apparently been long destroyed by pressure and absorbtion, so that it would seem that the left kidney alone was the seat of the Bright's disease and the source of the casts ; while the right, from around the calculus, produced the pus seen in the urine. The bladder was normal. There never was during life any pain or soreness in either lumbar region, so that while the purulent cavity around the calculus communicated freely with the abdominal wall, it is probable that the pus had always a freer exit in the direction of the ureter.

With reference to the heart there is of course no doubt, from post mortem appearances, that the extended dullness and wavy impulse were produced simply by the pericardial effusion, the wavy impulse being made more plainly marked by the stronger action of the hypertrophied left ventricle; and that the hypertrophy of the ventricle and the serous effusions were not due to any valvular defect, but to the Bright's disease of the left kidney. The systolic murmur, however, was without doubt endocardial, and produced either by regurgitation through the tricuspid orifice from embarrassment of the tendinous cords and consequent imperfect closure, or from the intra-ventricular current of blood over the fibrinous exudation, or probably from both.

The patient had had two attacks of acute rheumatism during life, the last one fourteen years previous to his last illness; but having had during life none of the general symptoms of tricuspid regurgitat [illegible] reasonable to infer that the fibrinous exudation was recent, and the result of an endocarditis coincident with the pericardial inflammation and effusion, and that both were the result of the uræmic toxæmia produced by Bright's disease.

Dr. Jenks then read his "Report on Obstetrics," for which a vote of thanks was tendered.

[Report published in September No. of JOURNAL.]

Dr. Munson asked if the new principles taught by Tarnier would prove useful and could be made of practical value.

Dr. Jenks thought they would prove so. With the old forceps one does not pull in the axis of the superior strait, or if one does, the handles of the instrument press backwards on the perineum, and contusions and lacerations frequently result. With the new instrument one could not help pulling in the axis when the head was above the brim; nor was the perineum endangered thereby.

He did not wish to be considered as a special advocate of Tarnier's forceps, but physicians did not always use the forceps properly and hence the accidents above mentioned. The French invention seemed to supplement the physician's lack of skill or knowledge when he failed to imitate nature. When nature was imitated there was no danger to the perineum.

Dr. Heaton said the question to him was whether the new instrument was necessary, and whether the same results could not be secured by the instrument now in use.

Lacerations may take place, but he had never seen any resulting from the use of the forceps, and believed they happened through carelessness. Opposition to the forceps came from men who made mistakes in applying them, and then for the bad results condemned the instrument. Still, in late years there had been a great improvement in this respect.

Dr. Gilbert illustrated his idea of the value of the invention by saying that a horse could draw a load easier when it was neither too high nor too low, and was adapted to the inequalities of the road. So the forceps might be made more useful by having a hinge between the handles and blades allowing the head more easily to adapt itself to the curve and contour of the parturient canal.

Dr. Carstens expressed great doubt of the value of the instrument, and did not see how one could avoid pressing on the perineum to a greater or less extent when traction was made in the axis of the inferior strait.

Dr. Reynolds also expressed disapproval of the new forceps, and thought it too complicated. In extracting a child from the pelvis there was something akin to drawing a cork from a bottle. In his own practice he never drew straight down in the axis of the canal, but while making direct traction kept up a motion from side to side and from before backwards.

As regards the use of chloroform he observed that it was always used in the Rotunda Hospital in forceps cases.

Dr. Shurly said that he did not use chloroform so much as formerly. When in the habit of using it in all cases of forceps delivery he was frequently troubled with secondary and concealed hæmorrhages, and thought its use increased the tendency to these risks. Now he never used it if he could avoid it.

Dr. Cleland said he believed Dr. Johnson, of the Rotunda Hospital, spoken of in the report, had advanced the correct ideas in regard to the use of the forceps. They were great conservators of the life of the child and relieved the mother of much pain and suffering. In his own practice he used the forceps more frequently than ever before.

Dr. Shurly read a report on a series of vaccinations, which appears elsewhere in the present number of the JOURNAL.

Dr. Gilbert reported a fatal case of puerperal convulsions. When he first saw the patient she was in labor and had had several convulsions. The face and legs were swollen, pulse slow and irregular, breathing stertorous, mind clouded. The os was dilatable. He gave chloroform, which controlled the convulsions and improved the pulse. Drs. Jenks and Rouse then arrived, and the forceps were applied, the os being dilated to introduce the second blade.

The chloroform controlled the convulsions completely, but after delivery she continued to sink until she died in an hour and a half. The child was still-born but was resuscitated.

He should not give chloroform in a case of convulsions where there was great venosity of the surface, as it only increased the weakness of the heart, which was the cause of the capillary engorgement.

THEO. F. KERR, M.D.,
Secretary.

Canada Medical Association.

Through the kindness of Dr. Wm. Brodie, who was appointed at the late meeting of the American Medical Association a delegate to the Canada Medical Association, we have been supplied with copies of the Montreal daily papers, from which we are enabled to present a synopsis of the proceedings of the tenth annual meeting of the latter body, held in Montreal on the 12th and 13th of September.

In point of numbers the gathering appears to have been tolerably successful, while the papers read were of high average ability—some of them being of superior excellence; notable among the latter were the papers on "Tricuspid Stenosis," by Dr. R. P. Howard, of Montreal, and "Excision of Knee," by Dr. Fenwick, of the same city. Dr. Workman, of Toronto, also read an article on "Large Doses of Acetate of Lead in *post partum* and other Hæmorrhages." This paper, like all productions from Dr. Workman's pen, was ably written, and possesses peculiar interest from the fact that the author was the first to present to the profession acetate of lead as a remedy of superior usefulness in *post partum* flooding. Dr. W. read also a paper on "Crime and Insanity," which elicited much discussion. Lack of space prevents a *resume* of these papers, and we can only give such extracts from the address of the President, Dr. Hingston, of Montreal, as are of common interest to members of the profession on both sides of the lines:

* * * * * He denied the insinuation that the Association had no objects sufficient for its existence worthy the la-

bor, expense and time of meeting together, insisting that this was the opinion of the ill-informed, who failed to perceive its advantages. Alluding to the growth of the Medical Association of our "American cousins," he (Dr. Hingston) said that although now after an existence of only thirty years found to be almost too large for practical purposes, the society must be admitted to have accomplished an amount of good not to be achieved by any other means. It had brought the medical profession of the United States into one body and encouraged the State institutions, thereby improving the tone in them. So with the association he addressed, which had existed for only one-third of that period. Legislation had imposed geographical boundaries and endeavored to make a fit practitioner of our province disqualified in another. The association defied all efforts to fix limits as of a boundary, and rubbed out those unsightly enclosures. * * * * * After alluding to matters of routine, he touched upon the question of legislation at the province of Quebec, where three bills went in last session to satisfy three orders of mind, and came out as one bill, and in a shape that satisfied no order of mind. The Province of Ontario system—a central Examining Board—had been favorably pronounced upon by the medical press and profession of that Province. The Province of Quebec had no such system; yet nothing short of it would satisfy those who looked only to the well-being of the profession and the community. The compulsion, requiring persons licensed in one part of the Dominion to procure license in another, seemed an anomaly; it was one. however, that could only be remedied by a parity of medical legislation in the several provinces. Much more liberal was the action of the English College of Physicians in Great Britain, which had passed a by-law legalizing even foreign practitioners in England, and on certain conditions exempting them from re-examination. It appeared to him the duty of the Canadian Association to endeavor to obtain such legislation as would lead to a like generous action. It was useless to speak of medical legislation for the whole Dominion, but local legislation could easily introduce measures simultaneously so that a practitioner in one could be a practitioner in all the Provinces. This could be done by central examining boards and a uniform system. In drawing attention to the act as at present existing, he showed that by the manipulation of proxies one active man might control matters at any time for the whole Province, making practitioners in the country and towns, unknown to themselves, his instruments in so doing. Having called attention to the refusal by the British Board of Trade to recognize Canadian qualifications for emigrant and passenger ships, so recently before the public, he explained that although the Board of Trade had rescinded the order, it was nevertheless a law, to be used by the British authorities at any time. The diplomas were recognized while their holders were allowed to be employed. And how could Canadians ask for the recision of the law while they did not allow the same right to each other? Alluding to the ungenerous act of a member of the profession in Ontario towards a surgeon of distinction from Detroit, he (Dr. Hingston) was certain that his associates in convention would allow him to interpret their views in assuring Dr. Jenks and through him the members of the profession in the adjoining Union, of their honest offered courtesy, and of their continued desire for reciprocity in matters which even governments cannot control, and in which science and humanity demanded the most unfettered civility. Coming from the question of education, what should *constitute* the qualifications of a medical student before entering upon the practice of his profession, to the question what should be his qualifications on entering our medical schools? he said the education he would advocate should give a delicate taste, a candid, equitable, dispassionate mind, a noble and courteous bearing in his conduct through life; should open the mind, correct, refine, enable it to master, know and digest, rule and use its knowledge, and give it power over its own faculties, application, flexibility, method, critical exactness, sagacity, resource, address. With the intellect thus tutored, the student might enter into the study of the most difficult professions and pursue with advantage a particular course of study that might issue in some remunerative manner. He shared not with those who advocated a low utilitarianism, but rather with those who think the student should be formed "not by a parsimonious admeasurement of studies" to some definite future object, but by taking a wide and liberal compass, and thinking a great deal on many subjects with no better end in view, perhaps, than because the exercise is one which made them more "rational and intelligent beings." But this was not what had been thrust upon them recently in an ill-digested law relating to their profession, in an important Province of this Dominion, where their colleges and seminaries of learning have been degraded from their position. The graduate in arts who had completed his eight or nine years curriculum at any of their colleges should by that fact alone be qualified to enter upon the study of medicine. But, no, their universities may grant degrees in arts, while colleges and affiliated medical schools had over-ridden them and subjected the candidate to a new ordeal, from which he should be exempt. He quoted Newman in proof of this view. In the days of Samuel Johnson the physician was admitted to be the most cultivated and learned in any society. Could this be said to-day of many countries —of Canada? There were cases, and notably in Ireland, where the physician is still among the best educated gentlemen, and his social standard regulated accordingly. Dr. Stokes in a conversation had by with him (Dr. Hingston) in 1867, explained this by saying: "Nearly all our graduates in medicine are graduates in art. Of the last 98 all had degrees in arts." In some other countries the same condition of things obtains. Continuing on this theme, he discriminated in favor of a *liberal* as in contradistinction from a *crammed* education. They must be above their knowledge, not under it. It was with medicine as with politics. There were two classes of those—one versed in the science and art of government, and capable of an abstract view of the contentions of parties—the other, a mere transcript or copy of the last editorial in the journal of his party, and unequal to the methodically arranging or digesting facts. To which class should the guidance of affairs of the country be entrusted? He could easily anticipate their answer. It was a question of far more moment than party which the physician was called to consider—the health and life of the people—and if the cultivation of the intellect was necessary when men were content to observe and base practice on observation, how much more necessary was it now when the most acute logical minds are sorely puzzled between what are scientific truths and bold and reckless assumptions? Here he remarked that this is unquestionably the age of bold, reckless—he had almost said impudent—assumption in matters of science. While it was generally conceded that "our ideas of the intrinsic elements that constitute beings in the physical as well as in the moral order are very limited and imperfect," they boldly assume the mutual dependence of things upon each other when we could logically establish nothing more than co-existence or succession, as if co-existence or succession necessarily implies connection or relation. He quoted the writings of Huxley and Spencer in proof of his statement. Speaking of synthesis in medicine, he quoted past events and the writings of Schenck, of Vienna, and later our own Erasmus Wilson, in support of it, saying that "the tyro in medicine has, or thinks he has, a half dozen remedies for every disease; but as experience is gained, he learns, and with advantage to his patients, to make a fewer number of remedies to suit a much greater number of disorders." He had always thought and the belief was strengthened with his years, that the work of grouping diseases for therapeutic purposes was yet to be done. He treated on the importance of state medicine which should investigate the air breathed, the water drank and all that pertains to our habits as communities—to protect the public health was the duty of state medicine. There could be no more important work than this. The work of educating communities and states was to be done through the people, and to the physician fell the philanthropic though perhaps somewhat thankless task.

Considerable discussion was elicited by Dr. Workman's paper on "Crime and Insanity," during which Dr. Brodie, of Detroit, remarked that the subject was one that had caused much discussion in the United States, and he rejoiced to have heard in the Canadian Association a paper so able as that just read. It was a move in the right direction. The outcome of agitation on the subject had resulted in his State in the abolition of capital punishment, and the imprisonment for life instead. It had been since found that judicial murder would have been committed in several cases had the law of capital punishment been carried out. Several cases had been discovered where the murderer was found to have been insane, and a free pardon by the Governor was the result. As to the manner in which Judges and juries ignored the testimony of medical men, and the ridicule often cast by clever lawyers on physicians who disagreed in their testimony, it was to be deprecated, and was another illustration of the many difficulties that beset the path of medical practitioners. The question of insanity, he felt sure, was one that would shortly take precedence of all others, so much had attention been directed thereto, and the result could not but be beneficial. He was not aware whether or not the Legislators of Canada treated the advice of the medical profession with the contempt and disregard it received in his own country. If they did, however, the medical profession in the Dominion would be compelled, as their brethren in the United States have been, to seek other channels for the enforcement of their views.

Dr. Workman did not believe in the legislation that placed a free pardon in the hands of a person who had committed murder, whether sane or insane at the time, and was in favor of the law as existing in the Dominion, which turned the patient over to the care of the keepers of the insane asylum. He was not aware of any person in Canada, sane or insane, having been sent back to their families except one or two women who had killed their own children. As to men, if sane, and pardoned as insane, they would be the more dangerous to society afterwards; if insane, then there was the more necessity for their confinement for the public safety.

Dr. Brodie did not think it right to imprison a man for a deed committed while insane, and thought that not being responsible for his act, he should be discharged after a cure had been effected.

Dr. F. W. Campbell mentioned the case of a man in Ontario having been pardoned after confederation. He had been imprisoned as insane, after having cut his wife's throat. Being pardoned after Confederation, some friends of his sent him from Toronto to England, and when at Quebec on his way thither, having met a woman with whom he had been intimate at the time of his wife's death, he eloped with her to the United States.

At the close of this discussion it was moved by Dr. Hornibrook, seconded by Hon. Dr. Parker,—That in the opinion of this Association it is desirable in all criminal trials, when medical opinion suggests the probability of mental unsoundness, the accused should be placed under the supervision of experts for a sufficient time to enable them to determine whether he was insane or not at the time the crime was committed. Carried unanimously.

The meeting was brought to a close by a banquet given at the City Club on the evening of the second day. The local press is loud in its admiration of the practical manner in which the medical gentlemen disposed of both the viands and the toasts. " While medical training and experience made doctors men of few words, we can only add that it also enables them to express much wisdom and sound thought in brief sentences."

The Chair was occupied by Dr. Hingston, ex-President, and the Vice Chair by Dr. L. W. Campbell, Vice-President. Dr. R. P. Howard and Dr. Robillard acted as croupiers. The usual loyal and standard toasts having been drunk, were responded to, the toast, " The Guests of the Evening," eliciting replies from the Right Hon. Dr. Playfair, Dr. Taylor, Dr. Brodie, of Detroit, Hon. Dr. Parker, and Dr. Grant.

Dr. Workman of Toronto, was elected president, and Hamilton selected as the place of the next meeting. J. J. M.

British Medical Association.

The annual meeting of the British Medical Association was this year held in Manchester. Certainly Manchester is a rainy place, if last week's experience was at all a fair one. Fortunately Owen's College was large enough to hold all the sections and furnish space for committee meetings, the annual museum, and exhibitions of various kinds, so that the showery weather, to put it politely, did not cause so much discomfort as it would have done had the various sections been in different buildings.

Those who arrived on the Monday went, as is the pious and dutiful practice of this Association, to church, and heard a sermon from the earnest and liberal minded bishop. This prelate is a tall, handsome, straight limbed man, whose physique is in harmony wiih his mind. His sermon gave great satisfaction to his audience. Then followed a general meeting, when Dr. Bartolome, of Sheffield, vacated the presidential chair in favor of Dr. Eason Wilkinson, the senior physician of the Manchester Royal Infirmary. In his address on taking the chair, the incoming president alluded feelingly to the loss the Association had sustained during the past year by the death of leading members,—Sir William Fergusson, Dr. Gibson, Mr. Southam, of Manchester, an excellent surgeon, and Mr. Whipple, who was president of the Association when it met at Plymouth in 1871. Instead of going into an account of the city, its development, the nature of its multifarious industries, and the ordinary staple material of presidential addresses, Dr. Wilkinson criticised the Royal Infirmary. And this he did, too, in no laudatory spirit, but frankly and candidly pointed out its defects and its shortcomings. Founded in 1752, it has gradually grown by additions from time to time to its present magnitude. Originally a plain brick building, it has been embellished by a Grecian front, which gives it an imposing aspect; only it is now surrounded by long shingle huts, which give more space, but æsthetically are great eye sores. He condemned the drainage, etc., in strong language; and a personal inspection of the place tells that the comments were none too stringent for the facts. From the drainage, upwards to the horrible forecastle-looking dens in which the nurses sleep, the place calls for condemnation in the strongest possible language. If good results are achieved in this hospital, it is by the skill and energy of its medical and surgical staff, and not by the arrangements of the building. The condition of the hospital and the question of its removal to a new site and a modern building have recently created a warm discussion, and no observant person can but regret that the decision arrived at was to retain the old building on its present site.

In the evening a conversazione was held in Owen's College, and largely attended. On Wednesday morning the business of the meeting commenced in good earnest, and a bustling crowd gathered round about and in the handsome Owen's College. The address on Medicine was given by Dr. Wm. Roberts, F.R.S., the first physician in the provinces. A crowded audience was greatly gratified by the address, which was one of unusual ability. He took up the subject of the development of lowly organisms especially with reference to their relation to contagium. Some original experiments had been formed by him,—one set consisting of organic liquids which had been filtered under pressure through unglazed earthenware into sterilized flasks. The conclusions Dr. Roberts arrived at were as follows: "Organic matter has no inherent power of generating bacteria, and no inherent power of passing into decomposition;" "bacteria are the actual agents of decomposition;" and a third conclusion is, "the organisms which appear as if spontaneously in decomposing fluids owe their origin exclusively to parent germs derived from the surrounding media." He then pursued the subject into its practical aspects and its relation to the production of disease; but it is impossible to give any decent abstract of this portion of the address.

The address on Surgery was delivered by Mr. Spencer Wells, who referred with justifiable pride to the share he had had in establishing ovariotomy as a successful operation. His first case was performed in 1858, and in three years he had only had ten cases. Now, however, he has performed this operation in no less than 870 women. He generously admitted the success of Thomas Keith, of Edinburgh, who out of a total of 241 cases has saved no less than 206,—"a success hitherto unequalled in the history of any capital operation." Mr. Wells alluded to many interesting subjects as well as ovariotomy. Sir Wm. Jenner was president of the Medicine Section, and took for his address the subject of the object and uses of the Association.

He spoke of the "real common brotherhood" achieved by the Association, and of the good effects of social association; also of the intellectual improvement such meetings afforded. And when it is borne in mind that this Association numbers over seven thousand members, it can readily be conceived what a powerful body it is becoming. Men from different parts of the kingdom get to know each other personally, the bond of cohesion is strengthened by having a personal element introduced, and what value that element has, all political organizers know. The medical profession has been long without a voice, and it is only now finding one in the Association's journal. Of these seven thousand associates no less than fifteen hundred were present at this meeting, which is one of the largest yet held, so that what Sir Wm. Jenner said was apt and pertinent. The address, however, which attracted the most attention was that by Dr. J. C. Bucknill, president of the Section of Psychology. He chose for his subject "Confession: the Physician and the Priest," in which he criticised the practice of a number of the Church of England clergy who wish to re-establish auricular confession. These mimic priests, he declared, were not entitled to regard themselves as physicians. "Is the priest a physician? Is sin disease? Is sacramental confession the avowal of symptoms, penance treatment, and absolution cure? In the interests of society and our profession, I most emphatically deny not only the identity of these things, but that there is any real analogy between them. I assert that the physician is a naturalist, the priest a supernaturalist; that no sophistry can bridge the abyss between them." He said that "The Priest in Absolution," the new handbook of the revived confessional, was unlike any medical writings except those of the "manly-vigor quacks."

In consequence of the prominence recently given to this book, and the fact that no less than seven hundred clergymen of the Church of England have formed a society for the re-introduction of confession, the greatest attention was paid to Dr. Bucknill's remarks, and they formed the subject of much animated conversation among the associates afterwards. The Church has long adopted a distinctly hostile attitude to the profession; but now the profession is giving much of its attention to the Church in return, and especially in relation to psychology. In the sections themselves many excellent papers were read, and in the Medicine Section discussions were got up specially on thoracic aneurism and pleuritic effusion, but without eliciting anything new or adding to the stock of knowledge on these subjects. In fact, it may very much be questioned whether these displays of knowledge on given subjects are as really acceptable to the bulk of the members as the plan of reading papers promiscuously and leaving men to come in and discuss them or not, as they feel inclined. A great many papers were taken as read or portions only read, from lack of time.

On Friday morning the work commenced with an address on "Obstetric Medicine," by Robert Barnes. He first pointed out the changes wrought in the system by pregnancy, and showed how, in reality, pregnancy performed for us a number of most interesting experiments. Many of the complications of pregnancy which are usually regarded as maladies were really physiological actions, giving relief to the overcharged system. Not only were there such actions of a cataclysmic character, but more lasting actions were induced. Diabetes is present with many women during the period of gestation, disappearing when parturition is accomplished. This is a very interesting and suggestive fact. He summed up as follows: "As pregnancy is the test of soundness in the individual, it may be of all her blood relations too, so is pregnancy often a crucial test of the soundness of pathological doctrines." He then criticised very candidly the position of the College of Surgeons in England, who do not require midwifery for their pass examinations. Yet their license to practise enables its holder to attend as much as he likes to obstetrics. As I pointed out in my last letter, a man once on the register, he can practice any department he pleases. He thought the diseases and wants of women quite as worthy of study as the maladies of men; that it was most unjust to woman to leave her special requirements to be studied or not as the student pleased. He said, "We repudiate utterly the proposition that there is one standard which it is necessary to attain to qualify for the treatment of men, and another, a lower standard, to qualify for the treatment of the diseases of women. The new doctrine that there is a special, an inferior kind of medical knowledge that is good enough to apply to the care of women, is the most transcendent of all medical heresies, the most flagrant wrong, the grossest insult, ever inflicted upon women."

The opening address of the Surgical Section was delivered by Mr. Edward Lund, of Manchester, who took up the subject of "The After-History of Surgical Cases." He said that we were "too apt to forget the old adage that 'the operation is but the beginning of the treatment.' Our patient leaves the hospital with a healed stump or a closed cicatrix, but who will tell us what shall be the fashion and utility of the former six or twelve months hence, or whether the tumor removed to-day is but the advance guard of an enemy of far more deadly import?" He then related the after-history of some major operations performed by him, the results being highly gratifying.

The Obstetric Section was presided over by Dr. Priestley, of London, who selected as the subject of his address "The History of Obstetric Medicine in Manchester." For a century now Manchester has held a prominent position in obstetrics. Dr. White wrote well on phlegmasia dolens in 1754, and Dr. Hull followed him in 1800 with a work on the same subject. The name of Dr. Radford will never be dissevered from Cæsarean section, while Mr. Kinder Wood's name is equally strongly linked with the detachment of the placenta in unavoidable uterine hæmorrhage. Dr. Roberton made a great study of the commencement of menstruation under varying circumstances, as well as of the use of midwifery instruments. Ovariotomy owes no little to Dr. Charles Clay; while Dr. Lloyd Roberts cleared up the subject of infantile leucorrhœa, which before his time had been thought due exclusively to carnal intercourse. Such are some of the more important contributions to obstetric medicine connected with Manchester.

An address was delivered on "State Medicine," by Dr. Arthur Ransome, on Tuesday evening, which was listened to with great attention. He pointed out several important matters to be attended to by the State before our sanitary arrangements can be regarded as at all perfect.

The Report of the Scientific Grants Committee was read, and £300 granted for further research The work done by Professor Rutherford on the action of drugs upon the biliary secretion; of Drs. Braidwood and Vaches on the life history of contagium, illustrated by beautiful colored drawings; and the experiments of Dr. Milner Fothergill as to the antagonism of certain drugs,—all of which have appeared in the Association's journal during the last year,—tell of good work which the Association is doing in furthering scientific research in Great Britain. The flourishing condition of the finances of the Association permits of its doing much in this and other directions. Only a few years ago the Association struggled on under a load of debt, and every year the derision of its enemies was excited by its annual deficit; but this is all over now, and the balance sheet of this year shows already in hand a sum of about £3,500, of which £1,500 are invested to form the nucleus of a growing capital which will make the British Medical Association a most powerful body and one of the greatest weight for all hygienic and sanitary legislation. On the Friday the remaining work of the sections was cleared off by a massacre of the innocents, and the downfall of the hopes of many a man who had worked hard at his paper for some time before in the illusive hope of having it read and discussed by a full company of medical men from all parts. But really there was no help for it; and if more papers are sent in than can possibly be got through in time, some must be left unread, or the time must be extended,—which does not seem likely. While this unsatisfactory operation was being performed in the sections, the final general meeting was being held, and votes of thanks being proposed and carried, the hospitality of the people of Manchester being fully recognized and appreciated.

One feature of this meeting is the public breakfast given to the Association by the Temperance party, headed by Mr. Samuel Bowley. This is always a pleasant entertainment, and well attended. After a most substantial meal, Mr. Bowley begs the medical men present to give their views on the temperance question, the value of alcohol in the treatment of disease, etc. If the speeches made are not of the highest order of eloquence, and represent the rather crude views of the speakers, it still keeps the question alive, and especially amidst the profession. After breakfast was over, the writer went with some of the leaders of the party to see the working of a temperance public-house. It was a very successful imitation of an ordinary tavern, and the different colored syrups simulated closely the various alcoholic liquors which figure so conspicuously in public houses in this country. A cup of very fair coffee was furnished for a penny, a glass of respectable soda water for a halfpenny. The food offered was on the same reasonable scale; and on the whole the place deserves commendation as a step in the right direction. It is not a charitable affair, but is meant to pay, whatever else it may not do.

Demonstrations of various kinds were made by different professors in several parts of Owen's College. Boyd Dawkins illustrated the condition of pre-historic man. Osborne Reynolds did some beautiful experiments to illustrate the formation of vortex rings. Professor Charcot, of Paris, exhibited a series of sections of the cord in various diseases. Professor Ludwig, of Leipsic, was surrounded by a ring of leading physiologists, many of them old pupils, and looked indeed, what he is felt to be, the king of modern physiologists. But the honors of the meeting fell to an American, Dr. Lewis Sayre, of New York, who gave a demonstration of his method of treating spinal curvature by a cuirass of muslin bandage strengthened with plaster of Paris. So interested was the Association that he was requested to repeat it on another series of cases on the Friday, and the room was crammed to overflowing. Not being a surgeon, the writer can express no opinion about the value of this plan; but it was very highly applauded by competent surgeons. He was invited to give a demonstration at Liverpool on the Saturday, which, according to the *British Medical Journal*, was a complete success.

And then came the really festive part of the meeting, when no pretence of work was thought of, even, and all gave themselves up to pleasure as if to make the most of it.

On Saturday morning the different excursions set out, the weather being delightful, just as if it wished to correct, to some extent, the evil impressions of the preceding days.—*Correspondence of Medical Times.*

Abstracts From Exchanges.

Practice of Medicine.

ON THE MANAGEMENT OF THE BOWELS IN ENTERIC FEVER.—*(Dublin Journal Medical Science,* Feb. 7, 1877. *Braith. Retrospect,* July, 1877).—Dr. Grimshaw, physician to Steeven's and Fever Hospitals, Dublin, after criticising the conduct of others, both in their diagnosis and treatment of typhoid fever, describes, in a few words, his course of action in the management of the bowels. In the first place, he believes that they should be more frequently moved than in health, and that the motions should be plentiful. Four times in twenty four hours are not too often, and the patient should never pass more than forty-eight hours without a movement, and not so long if any symptoms of pain or distension set in.

To attain this result, mere regulation of the diet will frequently suffice. Thus, if the bowels are moved more than the required number of times without the diarrhœa being a severe symptom, feeding the patient on boiled milk alone will be sufficient ; if not, add saccharated lime water. If these remedies do not keep the diarrhœa within reasonable bounds—say, under six motions in the twenty-four hours—employ sulphuric acid in the proportion of ʒ3 to an ℥8 mixture, one ounce to be taken every three hours.

His mixture usually contains quinine in a strong proportion. Should this fail, add morphia or tinct. opii to the mixture in small quantities. Never employ beef tea when there is a tendency to excessive freedom of the bowels. In cases of extreme diarrhœa the lead and opium pills in four grain doses every fourth hour are employed with great benefit. At the same time employ linseed poultices over the abdomen, and stupes of turpentine where pain or tenderness is much complained of.

The treatment of constipation is a more easy affair. He employs a single drug—castor oil, and muzzles it with opium. A teaspoonful is the dose, and in many cases, but half that amount. On first seeing a patient, if the bowels have been confined for some days, he at once gives a dose of castor oil. This not only benefits the patient but in a doubtful case assists the diagnosis by often producing a characteristic evacuation. In convalescence, begin with chicken broth, then chicken, and lastly mutton. If temperature rises, diarrhœa may be expected and should not be waited for. Meat should be discontinued and milk resumed.

NEW METHOD OF TREATMENT IN SPINA BIFIDA. *(Lancet. Canada Lancet*, July, 1877.)—A method of treatment which has several times proved successful in the hands of its originator, in a deformity of such fatality as spina bifida, is bound to commend itself to the attention of every surgeon. The former solutions of iodine employed were too diffusible. Dr. Morton, of the Glasgow Infirmary, recommends an iodo-glycerine solution, comprised of ten grains of iodine and thirty grains of iodide of potassium, dissolved in an ounce of pure glycerine. Varying quantities, according to the size of the tumor, are injected, but generally about half a drachm is sufficient.

Two precautions seem absolutely necessary: A medium sized trochar and canula must be used, because this fluid will not pass readily through a small canula; and the puncture must be carefully sealed up after the operation by collodion, or collodion flexile, lest the cerebro-spinal fluid should escape, and so cause the death of the child. The tumor should be injected slightly to one side of the mesial line and as near its upper part as possible. If necessary, it may be re-injected after the lapse of two or three weeks. Formerly Dr. Morton drew off the fluid contents before injecting the sac, but his later experience would show that this is unnecessary. If, apart from the spina bifida, the child is sound and thriving, and there is no paralysis of limbs or sphincters and no other important deformity, a permanent cure may be reasonably expected; but in cases complicated with hydrocephalus neither this nor any other treatment is of much avail. Dr. Morton reports fifteen successful cases.

INTRACARDIAC ORGANIC MURMURS. *(Le Progres Medicale,* April and May. *Can. Jl. Med. Sciences,* July, 1877.)—The following conclusions are drawn from certain lately reported lectures of Cuffer:

1. All intra-cardiac murmurs, whatever they may be, are modified when the patient passes from the horizontal to the vertical position.
2. They are all diminished in the upright posture.
3. The vertical position lessens the bruit by causing, on the one hand, a change in the shape of the heart, and on the other, by producing variations in the arterial tension, in consequence of which the number and force of the cardiac contractions are altered.
4. All bruits are intensified in the horizontal posture; indeed, certain murmurs are produced only in this attitude
5. Inspiration causes an augmentation of cardiac souffles.

SUDDEN DEATH IN TYPHOID. (*Sanitary Journal,* July, 1877.)—Dr Dieulafoy has observed that sudden death in typhoid fever is far from being of very rare occurrence, as he has been able to collect the records of some fifty cases. On comparing these together, one fact is strikingly prominent—all the cases occurred at from the seventeenth to the nineteenth day of the course of *mild* typhoid fever. To explain these sudden deaths two theories have been advanced. According to the first of these a reflex influence in the intestinal canal reacts on the bulb, giving rise to an arrest of the heart's action and fatal syncope. The other theory explains death by a granulo-adipose degeneration of the muscular fibres of the heart. Knowing these facts, physicians and nurses may be especially watchful of their patients about this period.

SEWER GASES. *(London Lancet. Sanitary Journal*, July, 1877.*)*—Prof. Frankland has made another contribution to sanitary science by stating his conclusion, after repeated experiments, that sewage, in flowing through a sewer, however unpleasant the odor may be in the locality, cannot be sufficiently agitated to impregnate the circumambient air with suspended particles. But if sewage becomes stagnant, fermentation ensues, and the bursting of myriads of minute bubbles throws into the air particles of zymotic matter. If, therefore, sewage is constantly passing at a fair rate through the sewers, the air therefrom is comparatively harmless; but if it be allowed to remain long enough to putrify, danger to health may arise.

ARSENICAL ANTIDOTES. (*Rep. de Pharm.*, 1876. *Boston Medical aud Surgical Journal*, July 12, 1877.)—From some late experiments Rouyer has found that although the freshly precipitated sesqui-hydrate of iron is an antidote for arsenious acid, it has no effect in counteracting the action of sodic arseniate or potassic arsenite (Fowler's solution), but that a mixture of a solution of the sesqui chloride of iron and the oxide of magnesium will counteract the effect of these salts as well as the arsenious acid itself, and hence this mixture is always preferable to the hydrate in cases of arsenic poisoning. The officinal solution of the sesqui-chloride of iron should be first administered, and fifteen minutes afterward the magnesia oxide, given in the proportion of four grammes of the latter to one hundred cub. cent. of the former. In one hour after the administration of the antidote, a cathartic should be given. The ingestion of acid drinks and lemonade should be avoided during the entire treatment, since the compounds formed by the union are soluble in acids.

HOW TO DEPRIVE IODINE OF ITS STAIN. *(Ex. Am. Jl. Med. Sciences.)*—Add a few drops of carbolic acid to the tincture and it will not stain; moreover the tincture is more efficacious and its action more certain M. Boggs recommends the following formula for use in injections: Alcoholic tincture of iodine, 3 grammes; carbolic acid, 6 drops; glycerine, 30 grammes; distilled water, 150 grammes.

Physiology.

DIAMETER OF THE RED BLOOD-CORPUSCLES. (*L' Union Medicale*, June 23, 1877.)—M. L. Perier, in a recent communication to the French Academy of Sciences, gives the results of his examination of the red blood-corpuscles for medico-legal purposes. His observations were made upon the blood of subjects whose ages ranged from the first moments of extra-uterine life to four score years. He says that

1. The diameter of the red globules can vary from .0031 to .0103 of a millimetre from birth to old age, and that it can slightly exceed the last figure in some individuals.

2. The extreme types of .0103 for the large corpuscles (the giant globules of Hayem) and of .0031 to .0037 for the smallest are exceedingly rare. Those of .0103 were found but once and in a young girl of 19½ years; two infants just born and a little girl of eight months furnished the second type.

3. Globules of .0100 of a millimetre, which are found in great numbers in the first days of extra-uterine life, quickly disappear and are rarely afterwards seen. Those of .0045 are principally found in the children and the aged.

4. The great mass of the globules, laying aside all considerations of age, temperament, and condition of life, measure between .0050 and .0087 of a millimetre, or within the limits already established by former authorities.

5. The most numerous type, for its globules are always present, is represented by those of .0075. Those of .0087 come next in order of frequency. His observations thus far have not yet enabled him to place the other measurements in their serial order.

DISINFECTION BY HEAT. (*Medical and Surgical Reporter*, July 14, 1877.)—In a late address Dr. Seaton, of London, says: In disinfection by heat there are two objects to accomplish, viz.,

1. To insure the materials being raised throughout to a temperature that can be depended on,

2. To do this without singeing the goods.

Penetration takes place much more easily when the article is dry; a horsehair pillow with the normal amount of hygrometric moisture, requires to be heated for eight hours. White wool, linen, cotton, silk and paper may be heated to 250° F., for three hours without apparent injury. A heat of 295° F., continued for about three hours, singes white wool (less so gray), white cotton, white silk white paper and linen, but does not injure their appearance materially. For penetration of heat into a bed an exposure of eight hours is required; 250° F. is the best and safest maximum heat to use. Good bed covers, such as are used in hospitals, bear at least six bakings without material change in aspect; a slight and gradually increasing brownish tinge occurs after many bakings, and after a time their appearance and strength are undoubtedly injured; blankets are less changed. The injury caused by periodical stoving of bedding, etc., such as that described above, does not amount to more than what may be called fair wear and tear.

THE LYMPHATIC VESSELS OF THE CHOROID. (*Morano. Annali de Ottalmologie*, July, 1877.)—In examining the choroids of men and animals Morano frequently discovered upon the walls of the capillary vessels elements which have thus far apparently escaped observation, and which present, at first sight, the appearance of a peri-vascular membrane, similar to that found in other organs and particularly in the brain. After having preserved for some time in Beale's fluid the choroid of pups, sheep, cats, dogs and men, on examination the following facts were particularly noticeable in the sheep's choroid, in which the best injection of Prussian blue had been obtained:

The capillary vessels, whose walls were distended by the injection, were seen to be surrounded by a lymph sheath (a perivascular canal). Oval or circular nuclei were seen upon the walls themselves, but the lymph sheath consisted of spindle-shaped or oblong bodies, rich in protoplasma, which communicated with one another by means of processes. These bodies stand out convexly from the vessel wall, but externally they appear flat. In direct connection with these bodies are the connective tissue cells of the choroid; the latter are very large, spindle-shaped or oblong, distended in the centre, with protoplasmic spots rich in pigment, and are apparently traversed by canaliculi. In all the canaliculated spaces a very finely granulated and pigmented substance was seen, which could be traced along the canaliculi even to the distended spaces of the cells of the lymph sheaths. It is therefore demonstrated that the connective tissue corpuscles stand in close relation to the elements of the lymph sheath and likewise form a connecting link between the capillary vessels.

METHOD FOR ESTIMATING THE AMOUNT OF ALBUMEN IN THE URINE CLINICALLY. *(Centralbl. fur Medicinisch. Wissensch.*, 196, No. 45. *Boston Med. and Surg. Jl.*, July 5, 1877.)—J. Stolnikow gives the following ready method: Dilute the urine with distilled water until a little of the mixture poured into a test glass just gives a white zone of coagulated albumen, when treated with concentrated nitric acid. The nitric acid should be added to the diluted urine as in performing Keller's test, and the test glass should be allowed to stand forty seconds, at the end of which time the zone should be visible. The calculation is then made by dividing the number of volumes of water required for this dilution, plus the volume of the urine, by two hundred and fifty, which will give the percentage of albumen in the urine. This relation was determined by a large number of exact quantitative analyses.

Obstetrics.

MILK FEVER AND ANTISEPTIC MIDWIFERY. (*Obstetrical Journal*, June, 1877. *Medical Record*, June 2, 1877.)—Dr. B. D. Taylor says that formerly he thought that milk fever was due to the rapid secretion of the lacteal fluid, but soon noticing that the symptoms never commenced until after the discharge from the uterus had become decomposed and offensive, it struck him that the chill, fever and sweating bore a strong resemblance to the symptoms of septicæmia and those of pyæmia developed in surgical cases. Acting upon this thought, he began the use of antiseptics, and ever since that time so-called milk fever has been wanting in his practice.

Five or six hours after the delivery of the placenta he slips a bed pan under the woman, and injects into the vagina with a Davidson's syringe a quart or a quart and a half of warm water containing two or three per cent. of carbolic, or an equivalent proportion of salicylic, acid. He repeats this twice a day for four days, then once for three or more days, when it is no longer needed. There will be no odor to the discharge, nor will there be a symptom of fever, no matter how much milk there may be.

POST PARTUM HÆMORRHAGE – NEW METHOD OF USING PERCHLORIDE OF IRON.—Dr. Jas. Brisbane *(London Lancet)* in cases of post partum hæmorrhage applies to the bleeding surface of the uterus a sponge soaked with tincture of iron. The blood coagulates, the uterus contracts and the patient is out of immeate danger. At the following visit the sponge is found in the vagina.

All the apparatus needed is a two ounce vial of tincture of iron and a sponge. In all the cases thus treated—four—the results were all that could be desired.

VACCINATION IN AMERICA.—The following amusing article is a literal translation of one which appears in the 76th No. of *L' Union Medicale:* "The present fashionable distraction in America is a very original one, for the Yankees have given themselves up with great zest to vaccination parties. They give soirees, and instead of the time-honored custom of serving refreshments, varied assortments of vaccine matter are offered to the guests. At a parlor concert, for example, after the conclusion of each number of the programme, the particular doctors called by the host pass through the salons and instead of the usual whisper of the waiters 'does Madam or Sir desire an ice, a sorbet, a punch or a sandwich,' we hear, 'do you wish the virus from the child or that from the cow?' and each one answering according to his fancy or the degree of confidence which the remedy inspires, 'Give me three children and five cows,' or 'four cows and four children,' always confining themselves to the orthodox eight incisions, which it behooves every good vaccination to possess.

Besides these services where the people are vaccinated, there are others where the vaccinated gather together to compare arms, and to note the success of the operation.

It is not a rare thing in America to-day, when a lady wishes to express her preference for a particular gentleman to hear her say, 'Oh we! why we were vaccinated together.'"

Surgery.

TREATMENT OF INFLAMMATION OF THE KNEE JOINT. *(L. Mayer, Bair. Arztt. Intelligenz Blatt,* 1877, No. 5. *Archives of Clinic Surg.)*—The author recommends the following therapeutical agents:

1. In acute synovitis: leeches, opium if indicated, compression and the ice-bag. Internally, a laxative of calomel. If, after three weeks, there still exists an exudation and limitation of motion, tr. iodine, elastic compression, and massage are advised.

2. In chronic synovitis, puncture and energetic compression.

3. In purulent synovitis, he makes an incision an inch long and uses Lister's drainage tube; also extension with weights of ten or fifteen pounds. In fungous synovitis (a) non-purulent; extension and injection of carbolic acid; (b) purulent, iodine; (c) with destruction of cartilage in children, opening of joint and gouging; in adults, resection.

4. Epiphyseal ostitis, ignipuncture at painful points of bone. When the bone is perforated, with destruction of articular surfaces, a resection should be made as soon as possible. (After Lister's method.)

A NEW AND SIMPLE DEVICE FOR FRACTURE OF THE PATELLA *(Clinic. Atlantic Medical and Surgical Journal,* July, 1877.*)*—Dr. M. E. Poynter recommends the following simple dressing, which he has used several times with the happiest results, as he was unable to detect after its use either separation or ligament between the fragments of the patella: Procure the top and bottom pieces of a cigar box; split off two pieces, two inches wide and hollow out one end of each to a semicircle (only a little shallower). Trim the board back of this somewhat into the shape of the handle of a paddle; take a few nails from the cigar box and fasten close to the hollow end of each of these pieces a block of wood an inch long and half an inch square. Groove out the block a little on the end away from the semicircle for the purpose of retaining a piece of cord, in the way of a pulley. You will next procure a straight board, to reach from the middle of the thigh to the middle of the calf, a roller and some lint or old muslin and a piece of stout cord, and you will have all that you will need.

Pad with the muslin the under surface of each of the short splints, and apply one above and one below the fractured patella, permitting the semi-lunar end to grasp its part of the bone accurately; line the long splint and apply on back of limb; let an assistant hold them so, whilst you apply a roller from the toes to the middle of the thigh, observing as you do so, that the short splints are in line on top of the limb. You can then bring the fragments together without much trouble by taking a couple of turns of a stout cord around the little blocks, and drawing gently but firmly on them. Tie the cord and you are done. The bones are held firmly in apposition, cannot readily be displaced, and if you have a compound fracture or much bruising of the soft parts, the whole surface is open for treatment. Put your patient on a crutch and send him out of doors; he need not be confined an hour.

INOCULATION OF THE CORNEA WITH PUS FROM THE LACHRYMAL SAC. *(Centralbl. fur Augenheilkunde*, July, 1877. *Prof. H. Schmidt-Rimpler.)*—Hypopyon-keratitis appears to be directly dependent upon pre-existing blenorrhagia of the lachrymal sac. Inoculation of the cornea of pups with the secretion of catarrhal or granular conjunctivitis were without result, but specific purulent processes arose after inoculation with the muco-purulent secretion of the lachrymal sac (110 experiments); at the same time (in 59 of the same) the influence of the so-called disinfectant agents was tested. For days after the mentioned inoculation a cheesy infiltration of the spot can be observed. In bad cases ulceration with its consequences, hypopyon and iritis, make their appearance. Therefore the opinion is a correct one that in man hypopyon-keratitis arises from the infection of an erosion through the secretions of the lachrymal sac. The infectious properties of these secretions is counteracted by a series of substances (chlorine water, salicylic and carbolic acids, alcohol, sulph. zinc.). In practice, chlorine water serves the best purpose.

DE WECKER'S CLINIC, PARIS. (*Centralbl. fur Augenheilkunde.*)—In De Wecker's report for 1876, 218 operations for extraction of cataract are reported; in one-half of the cases Græfe's method was employed and in the other the peripheric flap operation without previous iridectomy.

In the first series no suppuration occurred, but in seven cases there was closure of the pupil, which was relieved in the greater number by iridotomy; 18 cases $S = 1$. In the second series there were three cases of closure of the pupil, and three of suppuration of the cornea.

All cases in which there is increased tension, the first operation should be chosen, and also for cases of immature cataract and those complicated with thickening of the capsule. The second operation should be reserved for all other cases, and the flap should be taken from the lower segment.

Drainage of the eye was employed in 58 cases, 26 times for detachment of the retina and 12 times on account of absolute glaucoma. Wecker no longer uses the gold wire loop, employing in its stead prepared cat-gut.

The report also contains the notes of a case of congenital anophthalmos with a large cyst in the lower lid in a male infant of six months. The fluid of the cyst was a slightly alkaline, yellowish liquid, containing chlorates and an organic substance precipitable by hydrochloric acid.

Mental Diseases.

Curability of Insanity. (*American Journal Insanity*, April, 1877.)—Dr. Pliney Earle, Superintendent of the Northampton Massachusetts State Hospital, in an elaborate article upon this subject, reviews the matter historically by the examination of numerous reports of institutions for the insane, and shows that favorable deductions have been made from them, which really are not conclusive. Towards the close of his article he summarizes in the following words:

1. The reported recoveries from insanity are increased to an important extent by repeated recoveries from the periodical or recurrent form of the disease in the same pesson, and consequently—
2. The recoveries of *persons* are much less numerous than the recoveries of *patients* or *cases*; and consequently—
3. From the number of reported recoveries of *cases* or *patients*, it is generally impossible to ascertain the number of *persons* who recovered.
4. The number of reported recoveries is influenced, sometimes largely, by the temperament of the reporter, each man having his own standard or criterion of insanity.
5. The large proportion of recoveries formally reported, were *often* based upon the number of patients *discharged*, instead of the number *admitted*, and *generally*, upon the results in a number of cases too small to entitle the deduction therefrom of a general formula of scientific truth; and those proportions were evidently increased by that zeal and (for want of a better word) rivalry which frequently characterize the earlier periods of a great philanthropic enterprise.
6. The assumed curability of insanity as represented by those proportions, has not only not been sustained, but has been practically disproved by subsequent and more extensive experience.
7. The reported proportion of all cases received at the institution for the insane, has been constantly diminishing during a period of from twenty to fifty years.

Gynæcology.

INCISION AND DIVISION OF THE CERVIX UTERI FOR DYSMENORRHŒA AND STERILITY. (*Am. Jour. Obstetrics*, July 1877.)—Prof. Pallen after reviewing the opinions of authorities upon this subject and giving the results of his experience, concludes his able paper upon this theme with the following remarks: "The operation is to be performed upon no case where any cellulitis exists, nor upon cervices of women laboring under any incurable affections of heart, lungs, liver, or kidneys, nor in surgical wards of large hospitals, nor by a surgeon who has been in attendance upon erysipelatous, diphtheritic, scarlatinous or puerperal diseases. With precautions against sepsis from within or contagion from without, with all of the instruments well cleansed, and with such conditions as are below mentioned, I regard incisions of the cervix as not only justifiable, but as the proper and necessary mode of treatment. a. In congenital stenosis of the cervical canal, in consequence of defective development or from faulty implantation of the vagina, the small conical neck with pin hole os. Bilateral operation.

b. In acquired stenosis of the cervical canal, the result of pathological change of cervical tissue substance, where the structure is hard in consequence of atrophy and induration of the connective tissue, with a diminution in size of the blood vessels and a permanent ischæmia—the elongated conical neck with variable os, but usually small. This condition is most usually attended by enlarged body and catarrhal inflammation of the endometrium. Bilateral operation.

c. In congenital anteflexion of the neck, usually mushroom-shaped, small, indurated and pale, with variable sized os, connected with catarrhal endometritis; and, if of long duration, fatty degeneration of, at site of flexion. Emmet's posterior section of the neck with division of the knuckle at flexure.

d. In acquired anteflexion of the neck, from hypertrophic inflammation of the anterior wall of the body, or from subinvolution of the entire organ, or from posterior cervical hyperplasia. Posterior section of the neck simply, occasionally an additional bi-lateral division at the internal os.

e. In the various forms of congenital or acquired partial atresia of the cervical canal.

f. In retroflexion of the neck, usually acquired. The operation is the converse of anteflexion above described, but having seen but two cases, I cannot formulate any rule.

PICRIC ACID FOR SORE NIPPLES.—Dr. Charrier (*Courier Medical*, *Canada Med. Record*, March 1877), recommends picric acid for sore nipples. After washing well with tepid water, he paints, by means of a camel's hair brush, the chapped surface, with a solution of picric acid, 4 to 4½ grs. to 1 oz. This is repeated every day. Besides which he directs the nipple to be held after each time of suckling in a glass filled with a weaker solution, 2 grs. to 1 oz. of picric acid.

MEMBRANOUS DYSMENORRHŒA. (*Obstet. Journal Great Britain and Ireland*, July, 1877.)—Dr. John Williams in a late paper read before the Obstetrical Society of London, after giving the records of fourteen cases of membranous dysmenorrhœa, publishes the following conclusions upon the pathology of this affection:

1. The dysmenorrhœal membrane is not the product of conception, but the decidua, ordinarily shed as debris with every menstrual epoch.

2. It is expelled as a whole, or in masses, in consequence of an excess of fibrous tissue in the wall of the uterus (fibrous tissue always perishes in mass instead of disintegrating); this excess is due to imperfect evolution at puberty, imperfect involution after parturition, or abortion, or is the product of acute inflammation.

3. The membrane is neither the result of a ovarian condition nor of an hypertrophy of the ordinary decidua.

4. The chronic inflammation present is the result of the monthly expulsion of the decidua in masses from the uterus and plays an accidental part only in the formation of the membrane; the inflammation may, however, be independent of the expulsion of the membrane, but it has no causal relation to the formation of the latter.

5. Sterility is not necessarily connected with the affection, but is the result of the condition induced by the expulsion of the membrane in masses from the uterus—inflammation of the uterus and ovaries.

6. The membrane may be expelled without pain.

7. Inflammation of the uterus greatly agravates the suffering caused by the passage of the membrane along the cervical canal.

8. Great relief may be obtained by curing the inflammation of the cervix, though the membrane continues to be expelled every month.

9. In order to effect a cure the structure of the whole of the body of the uterus must be altered; the *excess of fibrous tissue must be removed.*

Editorial.

Notice to Correspondents, Etc.—Communications intended for publication, and books for review, should be addressed to "Editors of Detroit Medical Journal, care of E. B. Smith & Co., Detroit."

All remittances of money, all letters on the business of the Journal, pertaining to subscriptions or advertisements, should be addressed exclusively to the publishers, E. B. Smith & Co., corner Fort and Griswold Streets, Detroit, Mich.

Original Articles, Reports of Medical Societies, Observations, Correspondence, News, etc., of general interest, are respectfully solicited from every source. Articles should be practical and carefully prepared.

The Editors will not be responsible for statements made over the names of contributors.

The Specimen-Copy Man.

With its occasional amenities the position of editor of a medical journal, like most other avocations in life, has its vexations, and among these few are more irritating than the perennial applicant for specimen copies. Very seldom does a mail reach us wanting the missive whose device is "Please send me a specimen copy of your valuable journal." Earlier in our journalistic experience we were wont to allow ourselves to be flattered by these requests, coming, as they do, from all parts of the compass, and from regions remote. We laid the flattering unction to our soul that we were becoming "extensively and favorably known" to the profession. It did not take us long, however, to become convinced that we were being imposed upon and that the specimen-copy man was a fraud of the first water. We have yet to have our heart made glad by a dollar of the specimen-copy man's money, and the conviction has become most thoroughly grounded that the individual is the meanest kind of a dead-beat, and the only thing we regret, in this connection, is our inability to communicate to every member of the genus our opinion of him.

We suspect strongly that our contemporaries are contributing to the propagation of this nuisance from the fact that it has latterly been assuming more alarming proportions. Times are hard, but even the specimen-copy man feels his need of a journal, and with the aid of a package of postal cards (he was never known to send a postage stamp for return postage) he seeks to lay in his stock of periodicals. Unless he met with encouragement from some quarter we cannot but think that even his audacity would wear itself out. Let there be a general shutting down on this nuisance that it may soon be exterminated from the land.

Memoranda.

Dr. Joseph D. Bryant is Prof. A. B. Crosby's successor at Bellevue Medical College. Prof. Pooley, of Columbus, O., completes Prof. Crosby's course at Dartmouth.

The authorities of St. Mary's Hospital have opened a new infirmary for the treatment of Diseases of the Eye and Ear. It is in the charge of Dr. Eugene Smith, Oculist and Aurist to the Hospital.

Dr. J. H. Bundy in the "New Preparations," details his observations in the use of new drug, the berberis aquafolium. The plant grows on the Pacific Coast, and from the Dr.'s observations is of value in the treatment of syphilis, and as a general tonic.

The Cincinnati College of Medicine and Surgery announces but one Regular Course for 1877-78. Its former spring and summer course is abolished. This is a practical evidence that it intends to conform to the " Articles of Confederation " of the " American Medical College Association."

The Medical Profession living in, or visiting at Detroit are cordially invited by the Fraternity of Detroit Medical College to attend such lectures or clinics as they may desire. The preliminary term opened Sept. 5th, and the Regular term Oct 3rd. A card giving the order of work for the coming terms will be promptly furnished on application to the Secretary.

Dr. Carl Michel's work on " Diseases of the Nasal Cavity " has been translated by Mr. C. Jung of Detroit and will shortly be issued from the press. The subject is one of ever present interest to the dwellers in our climate. Dr. Michel's reputation in this branch of investigation is well known to all German students and insures a treatise of interest and positive value.

The fourth edition of Naphey's Therapeutics, published at the beginning of the present year is entirely exhausted. The fifth edition is in active preparation. The work will be thoroughly revised and largely increased so that the new edition will be bound in two volumes of about 500 pages each. Volume one will treat of Medical Therapeutics. They will be printed on tinted paper of the best style.

The total mortality for August in Montreal was 444, exclusion of still-births. This is 164 less than the preceding month and 97 less than the corresponding month of last year. This represents an annual ratio of 39-60 per thousand of population, estimated at 134,500. Of these deaths, 328 were among children. Zymotic diseases are charged with causing 193 deaths, of which dysentery, cholera infantum, and diarrhœa are accredited with 123. When we remark that the annual death rate of Detroit, with its estimated population of 115,000, is less than 20 per 1,000, still-births included, some idea may be formed of the comparative healthfulness of the two cities.

The *American Medical Weekly*, in the following terms calls attention to one of the impositions practiced on the medical profession: "One of the great evils and nuisances at the present time is the frequent application of life insurance companies to physicians for gratuitous opinions as to the capacity and efficiency of medical men applying for the position of medical examiners. It is time for the profession to cut short this system of polite mendicancy. The information sought is solely for the benefit of the insurance company and should never be given unless a fee of at least five dollars be transmitted with the official request. Many companies assert that the information is asked of a physician for the benefit of his professional brother. This is only adding insult to injury; it is assuming that physicians can be so stupid as to believe any such fraudulent statement. Stop the nuisance; insist on the fee or refuse the information for which the company disreputably begs."

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

THE PRACTITIONERS' REFERENCE BOOK. ADAPTED TO THE USE OF THE PHYSICIAN, THE PHARMACIST AND THE STUDENT, BY RICHARD J. DUNGLISON, M. D. Cloth; pages, 850. 1877. Philadelphia: Lindsay & Blakiston. Price, $3.50.

As indicated by its title, this work is solely a compilation of facts usually scattered through a variety of books and medical journals. Its presentation of the various weights and measures in their relation to one another and specially to the medical system is clear and conveniently arranged. Among the other subjects introduced are the solubility of medicines, comparison of thermometrical scales; abbreviations in common use; dietetic rules and precepts; details for conducting a post mortem examination; examination of the urine; methods of restoring the drowning; rules for the management of infants; obstetric memoranda; doses of medicine in every form and to every age, sex or weight in patient.

All these and a variety of other facts are collectively arranged for the convenience of those who are so ignorant of their libraries as to be unable to refer to them in the special books or journals from which they are taken, or of those who do no like to be troubled. The mechanical execution of the volume harmonizes with the habitual good taste and skill of the publishers. L. C.

THE PHYSIOLOGY OF SUGAR IN RELATION TO THE BLOOD. BY H. W. PAVY, M. D., F. R. S. Paper; pages, 15. London: C. W. Reynell.

The author shows what he regards as serious defects in Bernard's process for detecting sugar in the blood. Then he presents what he calls the gravimetric process. This consists of three stages. The blood is first mixed with sulphate of soda and heated to separate the albuminous and coloring matters. The liquid is then separated and the coagulum well washed to remove all the sugar. Boiling with an excess of the copper solution is then performed, and the reduced oxide afterwards collected and dissolved by the agency of an acid. In this solution a cylinder of platinum foil is immersed for the purpose of receiving the copper, removed by means of galvanic action. Weighing the copper before and after the operation gives the weight of the deposited copper, and from this may be calculated the amount of sugar which has affected the reduction of the cupric oxide." By this method he found that when blood was taken immediately at death from the sheep and bullock it contained one part of sugar in 2000, and in the dog one and one half parts in 2000.

He further found that there was little if any difference between the amount of blood in the arteries and veins. L. C.

FAT AND BLOOD AND HOW TO MAKE THEM. BY S. WEIR MITCHELL, M. D. Cloth; pages, 100. 1877. Philadelphia: J. B. Lippincott & Co.

This little work is an amplification of the author's lecture on "Rest in the Treatment of Nervous Diseases," published last year in Sequin's series of Clinical Lectures. His experience proves that a certain class of cases, incurable by ordinary methods, can be permanantly cured by the *systematic use* of *absolute rest* of massage, of electricity, and of abundant feeding. The work is worthy of the most careful consideration by all practical physicians. L. C.

NURSE AND PATIENT, AND CAMP CURE. BY S. WEIR MITCHELL M. D. Cloth; pages, 75. 1877. Philadelphia: J. B. Lippincott & Co.

These two essays are reprinted from Lippincott's Magazine. They are charmingly written and withal very suggestive to every thoughtful reader. He first points out the peculiar dangers that beset the nurse in caring for the sick, especially those gradually wasting under a chronic disorder. Few physicians but will recognize the accuracy with which he depicts the load that such masses are called to endure. The remedies suggested seem to us in the main, both practical and wise. Camp Cure is the title to cover the author's observations and experience upon the value of vacations to professional, business and other overworked persons. These vacations, he thinks, are best spent in the wilderness imitating the easy, careless life of the Indian. Those who, with congenial spirits, have sought the wilderness for rest, in rowing, fishing, hunting, bathing, botanizing or searching for mineral shells, etc., etc., will, in Dr. Mitchell's pen sketches, find a renewal of their old life. L. C.

THE PHYSICIANS VISITING LIST FOR 1878. Philadelphia: Lindsay & Blackiston.

This old and popular list is already issued for 1878. It is presented in a variety of styles and sizes to suit all customers.

JOINT DOCUMENTS OF THE STATE OF MICHIGAN FOR THE YEAR 1876. Volumes I. and II., also the REPORT OF THE MICHIGAN STATE POMOLOGICAL SOCIETY. All of these volumes are issued by the State Printer, W. S. George & Co., Lansing, Mich.

TRANSACTIONS OF MICHIGAN STATE MEDICAL SOCIETY FOR 1877.

We gave so full a report of the Annual Meeting in our June issue that further notice is uncalled for.

Meteorological Report of Detroit for August, 1877.

BY C. HENRI LEONARD, M. D., OBSERVER FOR STATE BOARD OF HEALTH.

A HOT, HAZY AND RAINY MONTH.

BAROMETER.—Highest, 30.150; lowest, 29.626; daily average, 29.886; range, .524.

TEMPERATURE.—Highest, 88; this was on the 1st; lowest, 56; this on the 15th; daily mean, 71.6; range, 32.

The temperature last month was both lower and higher by two degrees than this month; the daily average last month was less than one degree higher than that of this, although it was the hottest July we had had in years.

This has been a *hotter* August than usually falls to our lot; the daily mean in '73 was 70.1 degrees; in '74, 67.9; in '75, 67.1; in '76, 72.1 degrees. The highest August temperature recorded in the past five years was in '76; then the mercury registered 93 in the shade. The lowest August temperature was in '75; then 45 degrees was registered.

WINDS.—The prevailing direction has been S. W.; for fourteen days out of the month the wind was in that direction. The total number of miles traveled was 3,774; a falling off of some

400 miles from last month. The day of highest wind was the 26th; then 177 miles was registered; the lowest, the 17th; then but 80 miles were registered. 15 miles was the highest rate per hour; this was on the 31st.

CLOUDS.—Clear days, 12; cloudy, 8; rainy, 16.

RAINFALL.—Total precipitation was 7.29 inches—an enormous amount for a usually dry month. The highest precipitation was on the 31st; the 2.02 inches of rain fell. On the 10th and on the 23d over an inch fell. The rainfall this month was about *five times* that of last month.

In 1873 we had but 0.29 of an inch in the whole month; in '74, 2.10; in '75, 6.04; in '76, 2.46.

MOISTURE.—Largest amount present was at the evening observation of the 23d and the morning observation of the 28th; then 7.86 grains were present. At nine other observations the amount was above seven grains. On *nine* days the daily average temperature was higher than that when the greatest amount of moisture was present (the 28th). For the first time the highest "relative" humidity corresponds to the time of the highest "absolute," viz., on the 28th. The heaviest pressure of vapor was on the evening of the 23d and the morning of the 28th (times when absolute humidity was highest); it was then .715 of an inch.

OZONE.—Maximum coloration on the 28th and 29th; it then read No. 2 of the scale.

Recently we received specimens of exposed test paper from one of the other State observers. It was very noticeable for the increase of ozone, as is always the case in the country, there being less material in the air to neutralize the ozone. In the city the gas from coal is one of the great neutralizers of the action of ozone. On the test paper that has been colored considerably on one day's exposure if continued exposed for the succeeding twenty-four hours the color will often be much lessened, if not entirely absent. This is apt to be the case if the weather of the second day be "lowering," as the coal smoke is then not carried off.

H [illegible] ed at twenty-four observations.

Detroit Medical Journal.

NEW SERIES. VOL. I. NOVEMBER, 1877. No. 11.

Original Communications.

A Case of Repeated Excision of the Inferior Dental and Gustatory Nerves for the Cure of Dental Neuralgia.

READ BEFORE THE DETROIT MEDICAL AND LIBRARY ASSOCIATION BY THEODORE A. McGRAW, M.D., PROFESSOR OF SURGERY, DETROIT MEDICAL COLLEGE.

The recurrence of neuralgia after its apparent cure by the excision of nervous trunks has been variously explained. In cases of centric origin, as in those cases where the pressure of an intercranial tumor excites pain in the extremities of a nerve, we can only wonder that operative procedures should give even the temporary relief which has sometimes followed excision. In cases of peripheral origin we have to assume, in explanation of the recurrent pain, either that the stump of the nerve has been affected by disease or compressed by cicatricial tissue or that actual regeneration of the nervous trunk has taken place. Modern researches have made it evident that this latter process is much more frequent than was once supposed. In the case which I will now relate I believe that the nerve was actually regenerated, connecting anew the central organ with some unknown spot of irritation, which excited the persistent pain.

In June, 1875, I was consulted by a patient from Gaines, Mich., on account of a neuralgia, of several years' duration, of the left lower jaw He had been a man of very strong sexual passions, and he had indulged them without stint. He had been accustomed to use tobacco freely, was a hearty eater, but not, as I believe, addicted to drink. The teeth on the left side had all been taken out to relieve the intolerable pain. Nothing could be found in the mouth or face to account for the trouble.

On Feb. 20th, 1873, he had been operated on in Philadelphia by Prof. Gross, who trephined the horizontal portion of the bone and destroyed the nerve. The relief given by this operation continued over a year, when the pain again made its appearance in the jaw and for the first time in his tongue. It became in time so intense that he insisted upon having something done for its relief.

Assisted by his physician, Dr. Holly, of Vernon, and by some students from the college, on the 15th or June, 1875, I trephined the ramus of the jaw and cut out about half an inch of the inferior dental and gustatory nerves. His cheeks were very fat, and the bone was very dense and hard. The operation proved to be very difficult, and, as the trephine failed to make any impression on the ivory like bone, I was obliged to resort to the chisel and mallet. During this process the duct of Steno became bruised, and a few days after the operation ulcerated through, causing a [illegible] fistula. I[illegible] respects the patient did well and r[illegible] dly [illegible] many months before the fistula co[illegible] ive treatment. He ceased [illegible] for a period of fourteen [illegible] neuralgia recurre[illegible] attracted to th[illegible] Anatomie:

"Richet [illegible]

who, on account of severe neuralgias of the teeth, had had this nerve (the auriculo-temporal) cut by a cobbler of the Rue des Feves, in Paris, who for thirty years had practiced this operation with immediate and permanent success, and to the annoyance of the medical faculty, with great renown. Richet convinced himself of the value of the treatment by operating upon a case of horribly painful and rebellious dental neuralgia, with the effect of the immediate relief of pain."

Acting on this suggestion, I laid the auriculo-temporal nerve bare and divided it, but without any success in relieving the malady. A short time afterwards, at the request of the patient, whose sufferings were really atrocious, I performed the operation recommended by Dr. Gross, and removed the whole alveolar process of the left side of the lower jaw. Not the slightest improvement followed the operation. Day and night the unforfunate man was tortured by the unbearable pain, which never altogether intermitted, and sometimes made him delirious with agony. Believing that the nerve had become regenerated I determined to divide it at a point still nearer its origin and to tear it loose from its connections. I hoped in this way to achieve the success which had followed the stretching of nerves in neuralgias of traumatic origin, by breaking up any inflammatory adhesions which might compress it or bind it to neighboring parts. I believed, too, that I might thus prevent its regeneration by changing its internal structure.

I operated on Sept. 28th, before the class of the Detroit Medical College, in the following manner: I made a T-shaped incision with the horizontal portion just below the *Zygoma*—laid bare the bone and separated the upper and internal portion from the ramus with a chisel. This fragment, including the coronoid process, was turned up, leaving the nerves exposed as they came out from under the external pterygoid muscle. Pulling the nerves out with a blunt hook, I examined them carefully. They seemed to me to have become completely regenerated, passing down at the lower part of the wound where they had previously been divided without any break in their continuity till they were lost to sight. I grasped each separately with a pair of forceps and sought to pull them out from all their attachments. I had, however, miscalculated the strength of a living nervous cord, and found myself, after having made powerful traction in vain, obliged to cut them off with a pair of scissors, excising about three-quarters of an inch from each. The wound was then stuffed with carbolized lint and allowed to heal by granulation.

Healing occurred with great rapidity, and in a month the patient was ready to go home with but a small granulating spot remaining of the wound. There was, of course, paralysis of the eyelids, on account of the unavoidable division of the branches of the facial nerve. The neuralgia, however, was entirely relieved, and up to the present time he has had no signs of its recurrence. Whether the cure will be permanent, remains to be seen. I feared lest the operation at that point might cause anchylosis. This, however, is not the case. He has perfect motion and use of the jaw, and is entirely well of his salivary fistula. His long suffering has, however, broken his constitution, and his general health is wretched. He has, moreover, become addicted to the use of morphine, and has failed in many efforts which he has made to break the habit.

In view of the common recurrence of neuralgia after the excision of affected nerves and of the frequency of nervous regeneration as a cause of that recurrence, it would seem to me to be the duty of every operator to adopt such measures as would seem best adapted to prevent the growth of nervous tissue. Whether the stretching of nerves will accomplish the purpose remains to be seen; but it is at least worth a fair trial, and may be justified in practice, until experience proves its worthlessness or invention supplants it with better methods.

Abdominal Aorta nearly Severed by a Bullet—Life remaining at least an Hour and ten Minutes.

READ BEFORE THE DETROIT ACADEMY OF MEDICINE BY DR. JUDSON BRADLEY.

On the 4th of June, 1876, I was ordered to make, next day, a post mortem examination on the body of Martin Connors, who was killed by a bullet shot from a pistol on that day, to find the bullet. On the morning of the 5th of June, 1876, I made the autopsy as ordered by the coroner.

Laying open the skin and muscles where the bullet entered the body of the dead man I found that the bullet had passed through between the seventh and eighth ribs on the left side, about four inches from the median line. In its course it notchen the upper border of the eighth rib.

Opening the abdomen I at first encountered a large quantity of serum and clots, the result of internal hæmorrhage. I carefully removed the serum and clots, and satisfied myself that the bullet had not been taken out with them.

I then removed the stomach and bowels with care, and found that the bullet, in a downward and backward course, had passed through the stomach from the upper and front part of the cardiac extremity to the lower and back part of the pyloric extremity, thence through the pancreas, under the aorta, nearly severing it, and impinging on the spinal column about the first lumbar vertebra, again turned back and passed under the ascending vena cava, cut the right renal vein, and lodged in the right lobe of the liver near the right lateral border, where I secured it.

Now I should feel as if I ought to apologize to the Academy for introducing so ordinary an account of an autopsy to the attention of the members if I did not wish to call attention to the length of time that the man Connors lived after the fatal wound.

The shooting was done at the new water works, in Hamtramck, two miles distant from my office. A messenger came for me with horse and buggy, and I returned with him, time at least twenty minutes. Sent for a wagon to remove the man to the nearest house. This occupied at least twenty minutes more, as no wagon could be found until after inquiry. Then say ten minutes to place the man in the wagon and drive nearly a fourth of a mile, five minutes more to arrange a bed in a room for the reception of the wounded man, on which having been placed, the man breathed his last at the expiration of ten minutes, or at least one hour and ten minutes after the bullet entered the body.

If a smaller artery be cut, as the carotid, a man will bleed to death in a few minutes, or as Erichsen puts it, "the wound will prove immediately fatal." But here was a man with the abdominal aorta severed in at least three-fourths of its circumference by the passage of a bullet through it, whose death was delayed by the resistance of the peritoneum and fibro-cellular tissues surrounding the aorta to the comparatively long time of one hour and ten minutes at the very least.

This case has been interesting to me particularly as unsettling my convictions as to the time required for a man to die under such peculiarly fatal wounds. If, before seeing this case, a person had asked me the question, "How long could or ought a man to live under such circumstances?" I should have replied without hesitation, "five minutes," and should have been very far from the truth.

Two Cases of Supposed Hip Disease.

A PAPER READ BEFORE THE WAYNE COUNTY MEDICAL SOCIETY, BY DR. C. HENRI LEONARD, DETROIT.

In presenting you the histories of these cases, gentlemen, you will pardon my prolixity in their narration. When I tell you that the first was seen by several of our most prominent physicians, who were deceived as to the true state of affairs, I think you will thus excuse me for the minutiæ of detail of otherwise not over interesting cases. Moreover, several of my friends, influential in the profession, to whom I narrated a few of the of the symptoms seen in the case while treating it, left me "wagging their heads," they doubting also my diagnosis.

The first of these cases was a little girl, not quite three years of age, of average health, though not stout or robust, like many other children of German parentage. I was called upon July 2d, 1876, to see her. She had been ailing since the 5th of the previous month. An "irregular" was in attendance at this time.

On arriving at the house and questioning the mother, (who had seen the child more than the father) I at once made up my mind, and so expressed it to the parents, that the child had ***not*** hip disease (coxalgia), and that in this the previous attendants had all been mistaken.

This is the history as I then learned it:

June 5th, first complained of pain in leg, locating it at the *middle* of the inner surface of the *thigh*. On the 6th, complained more of it, but after a time walked pretty well. On the 7th and 8th the disease was progressive, and she walked stiff legged and stiff backed, putting the foot of the sore leg forwards, but brought the well one only up to the heel of the left, or the one of the diseased member. On the 9th she took but a few steps, ond on Saturday, the 10th, she made no attempt at walking. Stiffness of the leg and back was almost to complete anchylosis, she being like a "stick of wood," as the father expressed it. All this time there had been a steady and increasing fever. The physician then attending pronounced the case one of "spinal disease." All this time there had been no shortening, lengthening, abduction, adduction, eversion or inversion.

On the 12th a physician of large hospital experience was called in who pronounced it a "sprain of the hip." Fever at this time was *very* high, and she could not be moved from the bed without screaming from the pain thereby produced. She was now even "stiffer" than before. On the 13th symptoms were worse, an "acute inflammatory rheumatism" was diagnosed, and so some irritating ointment was applied to the hip joint. 14th, the whole member was now swollen and œdematous, though no prominence anywhere. This swelling increased steadily until Saturday, when the *whole limb* was at least one-third larger than the sound one. No mal-position or unnatural position of limb. On this date counsel was called, as the attendant did not care longer to take the responsibility of the case alone. The result of the consultation was to change the diagnosis to hip joint disease. Extension was advised, but on the whole had to be given up, as the limb was too painful to allow of any manipulation. The counselling physician saw the patient, I believe, three times. On the 23d the attending physician applied a "scattering" plaster over the hip joint. This, or something else, left the child screaming with pain, and it was taken off by the "irregular" that was called to the case on the 24th. The leg now began to be flexed at the knee, the swelling declining somewhat from the foot, which was slightly everted and abducted. Things remained *in statu quo* till I saw the patient on the 2d of July, it having been given up to die.

The thigh was greatly swollen, some enlargement of the foot and leg; leg strongly flexed upon the thigh, toes everted, and the limb laid upon its side upon the bed. Temperature, 104. Child greatly emaciated and unable to eat anything, and crying night and day with the pain. As there was no evidence of pointing anywhere I ordered poultice (the first she had had), and gave morphine to quiet the pain, and said I would open the limb to evacuate the matter on the morrow, should the child survive the night. The parents were greatly surprised that I should think matter present, as all the former attendants had only *feared pus might form*, and so applied embrocations, &c., "to scatter it" as fast as formed, if any should be produced.

July 3d, the patient much easier, and a slight tendency to softening over the femoral artery. As the patient was so much improved I deferred, at the earnest solicitation of the parents, all instrumental interference for the time, at least until the patient began to flag again. In a day or two things seemed to be stationary again, and I called in Dr. Gustin to administer chloroform while I made the incision, not desiring to make one upon a restless child without an anæsthetic (at the point where the pus seemed nearest the surface) just over the profunda femoris. The matter was so deep in that at the first introduction of the exploring needle I failed to reach it. Still confident of its being there, I reintroduced the needle, giving it a less outwardly direction, and deeper, and tapped the abscess. At this point I then introduced the bistoury, cutting an opening only large enough to introduce a pair of small dressing forceps, as the ground was too treacherous a one for promiscuous knifing, and tore the tract freely open, after the manner of Hilton. Nearly, if not fully, a quart of matter gushed out. The pus had burrowed all the way from the psoas region to the lower portion of the middle third of the thigh. The next day the fever had materially lessened, and the large pyogenic membrane lining the cavity was suppurating freely.

In a few days after opening the abscess other smaller ones occurred upon the body, but chiefly confined to the head and neck. I presume I opened no less than thirty of these secondary gatherings that varied from a filbert to an English walnut in size. In 17 days the little patient sat up in bed with the diseased thigh at a right angle upon the pelvis. Temperature now was about 100° F., with still a slight discharge from the wound.

When she first began to walk she was unable to bring the foot of the diseased limb any further forwards than the heel of the other foot. The foot has fully everted, and has held so whether standing or walking. She also limped a great deal from a stiffness in the psoæ and iliacus muscles. The father aptly described her walking to be like he would expect to see in a person that had a stiff rubber cord running from the small of the back to the front of the thigh, thus preventing the putting of the foot forwards and so holding the body inclined to the diseased thigh. The limb was perfectly moveable, on manipulating in the hip joint, and no pain or crepitation thereabouts. Over the abdomen, in the region of the iliac fossa it was still tender. I attributed the outward rotations to the wasting away of the muscles rotating the leg inwards by the so extensive suppuration. I assured the parents there would be progressive improvement, and so ordered good nourishment, plenty of out door exercise, and regular and systematic massage of the muscles of the thigh. This has so far improved the limb that at the present writing she places the foot almost as far in advance of the sound one as a person would normally. The foot also stands in about its normal condition when standing or walking, but is still inclined to turn outwards (though not to so great extent as formerly) when running. The psoas seems to be a little stiff yet, and so tends to incline her body forwards; though this is bettering weekly.

Considering the very unfavorable condition of the patient when taken—as I saw no chance of life beyond a week, at most, whether the abscess was opened or not—I think, upon the whole, it has been a successful case. The only thing I have to condemn myself in is the few days delay before opening the abscess. But it was a serious question then whether the patient would survive the operation—slight though it was. The parents also were against any operative procedure until "pointing" took place. "Pointing," however, did not take place at all, even when the opening was made, and it took a great deal to overcome their prejudices even then, as I could not reasonably give them assurance of a final recovery.

My second case is that of a boy, Fred ———, aged 8½ years. Is a big headed, slim bodied, nervous boy, that has never enjoyed robust health, yet never any special sickness. His nervous system outstrips his physical. Some two weeks before I saw he began to complain of its hurting him to walk, referring most of the pain to the hamstring tendons, the most upon the inner side. There had been no special strain or injury to the joint. He also stooped a little when on his feet, and leaned a little to his left (the affected) side. There was some tenderness in front of the thigh, near Poupart's ligament. This led the parents to suspect some trouble of the hip joint. Additional force was given to this from their being somewhat familiar with the course of hip joint troubles. After being on his feet for a half hour or so, his leg would limber up and nothing would be said about it for the remainder of the day. The next morning the stiffness and pain were a little severer, but in the course of an hour had left the little fellow again. Thus the case progressed, with daily exacerbations for some ten days, when he positively refused to walk, or stand upon his foot at all, the pain was so great.

At this time Dr. ——— was consulted, some remedy was given, and on calling the next day a large blister was applied over the trochanter, and quiet in bed enjoined, with an unfavorable prognosis as to the immediate recovery from the joint trouble. The boy steadily grew worse, and on the third day afterwards I saw him. I found him with a temperature of 104°, and with a history of several days of, apparently, as high a fever. Bowels constipated, unable to lie abed and still unable to stand. He would scream with pain, if held unsupported, erect with weight upon the limb. He stood with his body inclined left, laterally forwards, at about thirty degrees from perpendicular. The leg was flexed upon the thigh to about the same amount, and the toes only touched the floor. No inversion or eversion of foot, knee slightly adducted. On placing him on his back upon the table about the same angular position was maintained as regards the limb and the body. The least extension produced an intense pain that was referred to the region about Poupart's ligament, and the knee joint, posterior surface, where the hamstrings stood out like whip cords. On turning him over on his face I found the remains of a 4x4 blister over the posterior hip joint region that had been filled and emptied by former attendant, but *no pain or tenderness* on pressure over the joint proper, save the irritation occasioned by the blistered skin. On turning him upon his back I found that by supporting the thigh, strongly flexed upon the abdomen, the leg could be painlessly extended to nearly its full extent. Holding thigh still flexed, and stationary, percussion of knee joint gave no pain, extension of ligaments, rotation and flexion equally painlessly done, it was clear that no disease of knee was present, as the parents had also feared. There remained then the hip joint diseases to exclude before I could substantiate my hasty diagnosis made to the father on my first visit to the child. I found the thigh allowed complete flexion, extension to about 60 degrees, complete adduction

THE FIRST-STAGE SYMPTOMS OF COXALGIA.—CONTINUED.

COXALGIA.	GIRL (CASE I).	BOY (CASE II).
Abduction limited; cannot cross diseased limb over sound one.		Can quite easily and painlessly cross diseased limb over sound one if kept flexed at the hip; otherwise cannot.
Abduction also limited.		Abduction but slightly, if any, limited if limb is flexed on abdomen.
Motion freer if extension made in line of deformity.		Cannot make any extension on account of pain thereby produced.
Atrophy of the thigh; has been some time ailing.		No atrophy of the thigh, as only a few days complaining.
Pain, independent of motion or pressure, may or may not be present at hip joint. Generally present at *inside of knee.*		Not present at hip joint, but in hamstring tendons, the most upon the inner side. As the father expressed it, "they stood out like whip cords."

COXALGIA.	GIRL (CASE I).	BOY (CASE II).
Pain and tenderness elicited on manipulation about the joint, and by percussion. Especially so if pressure made back of the great trochanter.		No pain or tenderness about the joint, save near the insertion of the psoas, if the thigh was kept flexed on the abdomen. Percussion painless.
Body erect.		Body considerably inclined towards the diseased side.

SECOND STAGE OF COXALGIA, OR STAGE OF APPARENT LENGTHENING FROM EFFUSION INTO THE CAPSULE, THE CAPSULE REMAINING ENTIRE.

COXALGIA.	GIRL (CASE I).	BOY (CASE II)
Body erect.	Impossible to be removed from the bed.	Body much inclined to the diseased side, and with great anterior flexion.
No, or but little, fever.	Fever *very* marked and continued from the first. Thermometer showed a temperature of 104°.	Fever very marked and continuous from the first. Temperature, 104°.
Apparent *lengthening* of the limb with *flexion* upon the thigh.	No lengthening, and no flexion at knee until after the third week of disease.	No lengthening, but great flexion of leg upon thigh and thigh upon abdomen.

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SECOND STAGE OF COXALGIA.—CONTINUED.

COXALGIA.	GIRL (CASE I).	BOY (CASE II).
Foot *everted*, limb *abducted*, more dropping of natis, and foot slightly in advance of sound one.	Limb and foot perfectly straight till the third week; then laid with the external surface nearly flat upon the bed, the foot being completely everted. Was swollen from toes to iliac crest, and at times greatly œdematous.	No inversion or eversion of foot, but *knee* slightly *adducted*.
Marked anchylosis at hip (only) with severe pain; the *pain relieved by extension in the line of deformity*. Contraction of the adductor muscles.	The least movement causes pain; the whole limb and *back* being, as the father expressed it, "as stiff as a board." No special contraction of the adductors.	Extension in any direction gives excruciating pain. No anchylosis at hip joint if trial made with the thigh flexed strongly upon the abdomen. No pain in these manipulations. No contraction of adductors.
When movement of thigh is made the pelvis moves on opposite thigh, even under chloroform.	See above.	No such movement of pelvis, if limb is flexed upon the abdomen.
Foot touches ground with sole.	Foot would, if permitted, touch ground with sole.	Touches only with the toes,

COXALGIA.	GIRL (CASE I).	BOY (CASE II).
Pain most severe at night; the patient wakes with a sudden scream, then drops off to sleep again to awaken with a start and scream again.	Pain steady and continuous; though some nights resembling coxalgia.	Very similar to coxalgia in the matter of suddenly awakening at night.
Head *below* Nelaton's test line.	No displacement.	No displacement.

THIRD STAGE OF COXALGIA, STAGE OF RUPTURE OF JOINT-CAPSULE, OR STAGE OF SHORTENING.

COXALGIA.	GIRL (CASE I).	BOY (CASE II).
Suddenly there is *adduction* of the limb and *inversion* of foot with lessening of pain, and *shortening* of the limb.	Foot everted; pain more severe. *No* shortening.	Knee but slightly adducted, pain relieved in most part by flexing thigh upon abdomen. No inversion of foot or shortening of limb.
Shortening of limb.	No shortening.	No shortening.
Crepitus on manipulation of hip joint.	No crepitus.	No crepitus.
Ball of toes only touch the floor.	The whole sole might touch the floor.	Ball of toes only touch the floor.
Pelvis raised and projected backward, with natis high and round.	No special change.	No special change.

THIRD STAGE OF COXALGIA.—CONTINUED.

COXALGIA.	GIRL (CASE I).	BOY (CASE II).
Toes rest on opposite instep, when standing.	Would not.	Do not.
Trochanter on a level with Nelaton's line (may be a trifle below.)	On level with the line,	On a level with the line.
Painfully rigid and admits of no extension.	Rigid from muscular inflammation. No shortening, hence no extension.	Not so good. No shortening, hence no extension.
Body nearly erect, at times may be fever; as for instance on the opening of an abscess.	Fever high and continuous.	Body bent towards adducted member, and forwards. Fever high and continuous.
Gluteo-femoral fold higher, and nearly obliterated.	Not much changed. Natis flattened some.	No special change.
Finally, *ex post facto*, long time for recovery, and special mechanical and surgical treatment demanded. Deformity resulting.	Quick recovery; no special treatment used. Halt in the walk that is daily improving.	Quick recovery; no special treatment; no deformity; no lameness.

This, gentlemen, I think will be enough to prove to you the correctness of my diagnosis, even though some of you here once "wagged your heads" at such an opinion. I am not by this holding myself up as an expert in the diagnosis of hip joint troubles. Still I think if we all had the two or three rules that Sayre so inimitably lays down in his "Orthopedic Surgery and Disease of the Joints" prominently in mind there would be fewer mistakes made in the diagnosis of hip joint troubles. The rules I allude to are: If the joint has more than the ordinary amount of fluid (that is coxalgia in its second stage) the flexion will ALWAYS be accompanied by abduction and eversion.

If the capsule is ruptured (coxalgia in its third stage) the flexion (unless adhesions) ALWAYS has adduction and inversion.

These, gentlemen, might properly be called the golden rules in hip joint troubles. They have helped me out of many a—at first sight—perplexing case. To them I have added the following mnemonics:

In the second stage the disease is evidently FROM bad TO worse; hence, very properly, the Latin prepositional prefixes which both mean *from*, selected are *ab*(duction) and *e*(version) as showing the further position of the flexed member, as being *from* the body. In the third stage we have the Latin prepositional prefixes *ad*(duction) and *in*(version), as indicating the member as *to* or *towards* the body, and that the "*to* worse" has arrived. To some minds, however, the mnemonics may be worse than rules. But this is given to such as can receive it.

Case of Amputation for Extensive Caries and Abscess of the Tibia.

BY FRED B. WOOD, M.D., BIG RAPIDS, MICH.

On the 6th day of November, 1876, W—— G—— visited my office for the purpose of getting relief, if possible, from the extreme pain in his left leg, with which he had been suffering for several weeks. The following is the history of his trouble as related to me on his first visit:

When about eight years of age (eleven years ago), while playing at school, he received a severe injury by striking his limb against the edge of a plank sidewalk. The attending physician at this time diagnosed a fracture of the limb a little above the maleolus, and treated the limb accordingly. The recovery was not at all satisfactory, it being nearly three years before he was able to walk upon the injured limb. From this time it improved slowly until he supposed himself entirely recovered. But upon several occasions since, whenever he has received but slight injuries, which, in the other limb would not be noticed, he has been confined to the house, and sometimes to his bed, for several days at a time, suffering extreme pain, the limb at such times swelling but little, and the soft parts but little discolored.

In December, 1875, while in the act of driving a railroad spike with a heavy hammer. or sledge, the hammer slipped from the head of the spike, striking him with great force upon the same limb, and about two inches above the joint. For the next eleven months almost everything was used for the relief of the inflammation and suffering, both by members of the regular proprofession and traveling quacks, with but little success. At times he would get temporary relief so that he could work at his trade—that of a butcher—and at other times he would be confined to his bed.

Upon examining his limb I found but little swelling or reddess indicating an inflammatory condition of the soft parts, neither had there been at any time. By making firm pressure, however, I found it caused extreme and unendurable pain, also showing the periosteum to be thickened and nodulated over the entire lower third of the bone. His suffering had been so intense that it had been impossible for him to sleep nights for one week or more before he visited me. I at once placed my patient on the following treatment, watching carefully its effects: Sul. quinine, one scr., ferri redacti, ʒss, to be made into ten powders, one to be taken after each meal. Potass. iod., ʒjv, ammonia mur., ʒiij, aqua font., syrup sarsapr. co., aa℥ij. M. Take one teaspoonful before each meal and at bed time; also giving him a hypodermic injection of morphia each night for the relief of pain. This treatment I continued, with the addition of alcoholic stimulants at times for about seventy or eighty days, with no benefit whatever, my patient gradually growing weaker during the latter part of this time.

Several of the physicians of this city examined him at my request, from time to time, and I presented him once as a clinic to the Union Medical Society of Northern Michigan. One of the members agreed with me that it was a case of chronic periostitis, and that the remedies I was using must give relief if any form of medication would do so.

During the latter part of January, 1877, my patient failed very rapidly, and the injection of morphia, although given in large doses, afforded no relief from suffering. Therefore, on the 31st day of January last, I decided to make an explorative operation, and, if possible, discover the cause of all this trouble.

My patient being chloroformed and Esmarch's bandage being applied, I commenced operations in the presence of, and assisted by, Drs. Bigelow, Phelps, Hendryx and Badger, of this city. I made an incision down upon the bone, extending from the inner maleolus about six inches upward along the inner surface of the limb.

Although the soft parts were somewhat thickened, there had been at no time any formation of pus or sloughing whatever. I found the bone in many places entirely denuded of periosteum, and in a softened, honey-combed condition; indeed, so much so that it could be broken down with the handle of the scalpel or the thumb quite readily. Now, believing that the disease of the bone was so extensive that it would be impossible to save the limb, I decided to amputate on the following day, which I did in the presence of the gentlemen above named. The patient rallied very nicely indeed from the operation, and I do not think I ever saw one gain more rapidly after an operation than did this one, as he was on the street upon crutches on the eleventh day after. The amputation was made at the union of upper and middle thirds of the limb, and the stump healed very kindly with the exception of one point a little back of and at the outer surface of the tibia. This point remained open, discharging but little, for about three months after the operation, during which time I removed two small pieces of bone. It then healed and has remained so up to the present time, Oct. 6, 1877.

In examining the bone I split it through its entire length with the saw, and found it in the following condition: About three-fourths of an inch above the articular end of the tibia I found an abscess centrally located in the bone, containing about two drachms of thick pus. There being no external opening communicating with the abscess, the medullary and Haversian canals, for about four inches above the abscess, were entirely closed, not even a trace of them being found in the bone. Above this point and on to the point of amputation, the central portion of the bone was destroyed by disease, leaving but a thin shell at some points only the one-twentieth of an inch in thickness. This clearly indicated the reason why some portions of the stump refused to heal, and necessitated the removal of portions of the bone three months after amputation was performed. Externally the upper portion of the bone presents a healthy appearance, while the lower third is very much thickened and enlarged from inflammatory action. The entire substance of the bone for about three and one-half inches above its articular end in which was found the abscess, is in a carious condition.

Now, in my opinion, this is not a case of true bone abscess, but it is my judgment that the abscess found in the central portion of the bone is one caused by caries, that disease having been gradually advancing since the infliction of the first injury eleven years ago. In either case, as a rule, the disease attacks the bone in the same locality, but in true abscess we very seldom, if ever, find extensive caries, while in caries we will almost always find abscess; showing that there had been increased vascularity, softening, and ultimately disintegration of the structure. And yet, taking my view of the case, it seems strange that there should be such extensive destruction of the bone from caries, while the soft parts were so slightly implicated as they were in this case.

That an inflammatory action has been going on in this instance for a long time I think is proven by the fact that for a distance of four inches above the carious portion around the abscess the bone is found to be perfectly solid, and almost as dense and compact as the periosteum itself, the medullary and Haversian canals being entirely obliterated; and again, above this point we find the inner surface of the bone around the medullary canal entirely destroyed, leaving, as it were, a mere shell for the support of the body.

I should like to hear the opinions of other members of the profession in regard to this, to me, very interesting case.

Ophthalmology.

CASES REPORTED BY EUGENE SMITH, M.D., DETROIT.

Ophthalmic and Aural Surgeon to St. Mary's Hospital, Surgeon in Charge of St. Mary's Hospital Free Eye and Ear Infirmary.

The following very interesting case consulted me about the first of last July, complaining of trouble with his right eye. He had suffered for nearly a year with what was supposed to be rheumatism of the left arm, and which had been treated as such.

The eye appeared to be all right except that the pupil was contracted to a very minute size (myosis), and was perfectly immovable. The patient could see to read the finest test type with perfect ease, but large objects were but partially seen. With the ophthalmoscope the fundus appeared healthy. The patient called my attention to a swelling, or rather a series of swellings, situated under the left sterno-cleido-mastoid muscle, which I pronounced to be indurated lymphatics, and which seemed to pass down under the clavicle. The enlargement of the lymphatic ganglion followed an eruption of the scalp and neck.

My diagnosis was *pressure of the cervical portion of the sympathetic* by the enlarged lymphatics, paralysing the radiating fibres of the iris, the pain in the arm being caused by the compression of the brachial plexus. The prescription consisted of bichloride of mercury internally and iodine tincture externally to the enlarged lymphatics. I lost sight of the patient till the 25th of Sept., when he called in to let me know that he has nearly recovered. The vision has improved, the pain in the arm has disappeared, and the lymphatic enlargements have nearly gone, those remaining being very soft. I changed the prescription to iodide of potass., and pronounced the patient almost well. The patient was 19 years of age.

OPHTHALMIA NEONATORUM.—This is an inflammation of the eyes which should be, and probably is, of the deepest interest to the general practitioner. It requires no very great stretching of the imagination to fancy, if one has never seen, the anxiety of the mother when she sees the quantity of discharge which usually escapes from between the eyelids. Purulent ophthalmia is a serious affair in adults, and how much more so does it not seem in the delicate, new-born baby. Yet it is a disease easily controlled by proper treatment, and not necessarily fatal to vision. It usually shows itself about the third or fourth day after birth, which fact is pretty fair proof that it is provoked by inoculation. It may, however, and frequently does, ensue from exposure to bright light, from the contact of soap and water while washing the infant, from want of cleanliness and from cold air.

At the commencement of the disease the edges of the lids are slightly agglutinated, the lids are a trifle swollen, their borders red, and there is a slight catarrhal discharge. These symptoms are sometimes stopped at this point, causing simply a catarrhal ophthalmia, but it is necessary to remember that such symptoms are the usual precursors of the purulent form, and to watch them closely. The disease usually attacks one eye first, and very soon after the other becomes affected. The conjunctiva becomes swollen, and on opening the lid there escapes a citrine-like liquid containing flakes of mucus and pus. Unless modified by proper treatment the swelling of the lids increases, as does also the purulent secretion, and too frequently the cornea becomes affected, and either vision is lost, or unsightly white spots are left as the result, producing more or less impairment of sight.

In every case of purulent inflammation of the conjunctiva it is necessary to pay particular attention to the state of the cornea. If the swelling of the conjunctiva and the lids renders it impossible to separate the lids with the fingers sufficiently to examine the cornea, the lid elevators must be used. The treatment of ophthalmia neonatorum must be guided by the character of the secretion; if the secretion is of a catarrhal type cleansing with warm milk and the use of a mild stimulating lotion, such as zinci sulph., grs.i–ii, aqua, ℥i, every six hours will usually cure the trouble in a few days. If, however, we have to deal with a purely purulent type of the disease, more energetic treatment is called for. The edges of the lids must be kept annointed to prevent the retention of the discharge in the conjunctival sac by the agglutination of the edges of the lids, and the lids *everted*, cleansed of the secretion, and according to the gravity of the case either cauterized with the mitigated stick of argenti nitras, or a 5 grs. ad ℥i solution of the nitrate of silver used morning and evening. I do not approve of *washing* the eyes every fifteen minutes or every hour, as I believe the *irritation is increased thereby*, and if the glueing together of the lids is prevented, as it certainly will be by properly annointing their edges, the secretion will escape, and can be gently wiped away *externally*. I have known the disease to be *prevented from getting well* by the over-anxiety to keep the *conjunctiva* cleansed of the discharge. It is usually a number of days, even when neglected, before the ocular conjunctiva or cornea becomes affected, and with proper care and treatment they seldom participate in the inflammation. I do not hesitate to say that an eye *never* should be lost from ophthalmia neonatorum, though I am sorry to say many are.

If the cornea *is* affected, the cauterizations, or applications of the solution of nitrate of silver (5 grs. ad ℥i) *should be continued* to the *everted* lids, care being taken to wash off the excess of silver, and a 4 gr. ad ℥i solution of sulph. atropia instilled every two or four hours. Sometimes it is necessary particularly if the corneal trouble is spreading, to make paracentesis of the anterior chamber, or if a prolapse of the iris has taken place, to snip it off with the scissors. Complications of the above character, however, only happen from *neglect.*

The recent care of several cases of this disease, and having been consulted a short time since about a *hopeless* case which had been treated by a *notorious quack* of this city, prompted the writing of the present notes, which he hopes will be received by the JOURNAL in the spirit in which they are written.

PURULENT OPHTHALMIA. — The following interesting and curious case so fully illustrates the foolishness and ignorance existing amongst the laity, so to speak, that I can not forbear translating it for the readers of the JOURNAL. Comment is unnecessary, and, although this particular case happened in France, cases fully as disgusting and displaying equal ignorance frequently occur in this country. The case is related by Dr. Briere, of Havre, in the July and August number of the *Annales d' Oculistique,* and is entitled "Singuliere etiologie d'un cas d'ophthalmie purulente." A young girl five months old was born with a small nævus, about the size of a lentil, situated at the inner part of the left upper-lid near the eyebrow. A physician who was consulted, advised letting it alone, but the mother, anxious about the beauty of her little girl, accepted the advice of a friend to rub the nævus with a *piece of placenta still warm,* (recent). Without any uneasiness regarding the production of the placenta, or the health of the person from whom it came, she procured, through a waiting maid an after-birth from a woman of bad character, and a piece of the placenta, *still warm and bleeding,* was applied without delay to the affected lid. The lid was rubbed for a long time, and so well that the infant swallowed blood which oozed from the piece of the after-birth. Three days after, Briere was called to take care of the child who was affected with a very severe purulent ophthalmia of the left eye, and a commencing purulent inflammation of the right. It was very severe and lasted a month, though vision was saved.

Enucleation.—Sunday, Sept. 30th, I was called fifteen miles into the country to see Mr. J. C. Mason, who, the Thursday previous had received a terrible wound in the left eye. While holding a wagon spoke for one of his men to drive into a hub, a large splinter flew off and without wounding the eyelids, laid the eye-ball open transversely across the center of the cornea, the wound being over half an inch in length. The lens and entire vitreous body ran out. The patient received intelligent treatment at the hands of the family physician, who coming to the conclusion that the eye ought to be removed, sent for me in consultation. Agreeing with the family physician as to the probability of immediate removal, I performed enucleation. The wound extended from the insertion of the internal rectus to that of the external rectus, through the ciliary body. The vitreous chamber was filled with a blood clot. No trouble had arisen with the other eye and the enucleation was advised as a *preventive* measure.

The subject of *preventive enucleation* is one which, for a long time has occupied the minds of ophthalmic surgeons, and is a difficult one to handle. We cannot say that one general method must be adopted, and lay down any rule or indicate the symptoms which require this or that proceeding, but each case must be considered on its own merits, and the arguments *pro* and *con* be balanced.

The following questions were to be discussed at the International Congress, periodical, of the Medical Science, held at Geneva this year. The result has not yet reached me, but the questions are interesting in this connection.

1st. Sympathetic troubles follow traumatism of the eye, are primary or secondary. The first are seen a few days after the accident; the others in a greater or less time—months or years—after the patient has recovered from the immediate results of the accident.

2d. When an eye is destroyed by a traumatism and all hopes of saving the sight or even a useful degree of vision are lost, immense service is rendered the injured person by forthwith enucleating the injured eye. By so doing, we prevent the immediate results of the injury, ophthalmitis, etc.; the patient will, in a short time be able to wear an artificial eyé, and we certainly prevent consecutive accidents. When there is reason to believe that the wounded globe contains a foreign body, the indications for enucleation are more imperative.

3d When an eye is lost in any way, traumatic or otherwise, and the stump is the seat of continued or intermittent sensitiveness, or of any acute or chronic inflammation, or contains a foreign body or chalky lens, enucleation is indicated as a preventive means even though the other eye manifests no symptoms of sympathetic trouble

4th. The enucleation of a blind eye, though it be painless, is still indicated if—which is possible in this condition—the other eye becomes the seat of symptoms attributable to sympathy.

The following provisory conclusions npon the cause and prevention of myopia (near-sightedness), which are to be discussed at the same "Congress," will give the readers of the *Journal* an excellent idea of the opinion existing in the minds of ophthalmic specialists regarding the cause of the important subject nearsightedness.

1st. The ordinary causes of myopia are ocular work and inheritance, whose action may be separate or combined. The first is the predominating cause.

2d. Hypermetropia (the very opposite condition, E. S.) may, under the influence of ocular work, be transformed to myopia, passing through emmetropia (the normal condition E. S.)

3d. The progress of civilization and especially of instruction tends to augment the extension of myopia.

4th. The predisposition to myopia is frequently, but not always hereditary. The influence of race upon this predisposition is still an open question.

5th. In ocular work, three principal factors concur to produce the anatomical lesions of progressive myopia in predisposed individuals; they are in the order of their importance, the accommodation, the convergence of the visual axes and the oculocephalic congestion.

6th. The development of myopia is powerfully influenced by age, attitude, illumination, length of time of ocular work, the nature of the objects fixed (size of type, etc., E. S.) and the state of the eyes themselves.

7th. The prevention of myopia is to be sought for, in individual hygiene at home and at school in great part to be effected by physicians, teachers and the authorities, (school boards, board of education, etc., E. S.) It is necessary to use convex glasses for work in cases of hypermetropia.

95 Fort St. West.

Reports of Societies.

Detroit Medical and Library Association.

Regular meeting Sept. 24, 1877. President Brown in the chair.

Dr. McGraw exhibited a vesical calculus lately removed, weighing 666 grains. The stone was of composite character, the nucleus being of uric acid, while around it were concentric layers of oxalic acid and various phosphates. The patient had been afflicted for years, but his malady had never been fully diagnosticated, probably on account of the extreme difficulty in reaching the stone, which lay sacculated above the pubis.

When the diagnosis was fully determined, the doctor operated by the medio-lateral method, with a straight staff, but was compelled to crush the stone with the lithotrite before he could extract it from the wound. The operation was a successful one, and the patient was nearly well, no urine passing by the perineal wound.

The case had come from outside the city, and this led to the remark that in his experience when a stone did not originate either from paralysis or enlarged prostate it came from some locality outside of Detroit.

He also exhibited a large sarcomatous tumor removed from the posterior triangle of the neck. It had involved the glands of that region, and entailed much suffering on the patient.

In its inception it had presented no symptoms of malignancy, which fact gave the doctor an opportunity to state his tendency to a belief in the theory that tumors are of local origin and benign in character, afterwards assuming malignancy. He also believed that early excision of tumors would prevent, by anticipation, this change in type, and thus preserve many an unfortunate from much suffering.

Dr. Jenks exhibited a tumor weighing seven and a half pounds, taken from the abdomen of a child two and a half years of age. He had first seen the child about ten months ago with Dr. Leach, who was attending it for some malarial affection. His attention had been called by the mother to a bloody discharge, thought to be from the vagina, but which he now believes came from the bladder; and also to a "bloating" in the abdomen. An examination of the latter plainly revealed the presence of a tumor occupying entirely the left iliac fossa, rising above the umbilical line and reaching beyond the median line. When Dr. Jenks examined the case he found the abdominal walls freely movable over the surface of the tumor, and fluctuation present.

It very much simulated an ovarian cyst, but a guarded diagnosis was given, as, if such were the fact, it would be a very unusual and remarkable thing.

Several other physicians also examined the child and all inclined to the same opinion.

The tumor kept growing, the child failed and recently died.

A *post mortem* was held, and on cutting down to the tumor it was found to be encased in a thick, fibrous covering, and to be agglutinated to the intestines, the omentum and the mesentery Along the spine, in the lumbar region, it was closely adherent, and being cut away from its attachments no kidney was found on that side. It was therefore a tumor of the left kidney. The right kidney, which had been doing the work of two, was healthy and as large as an ordinary adult kidney. The tumor was then laid open in presence of the society, when its contents were so evidently encephaloid that no doubt was expressed as to its character.

Dr. McGraw then read a paper on "The Excision of the Inferior Dental and Gustatory Nerves for the Cure of Dental Neuralgia. [See elsewhere, present No.]

Dr. Mulheron mentioned a patient he had recently seen on the eighth day after her confinement. She was then comatose and moribund from meningeal inflammation, but had never slept since her delivery. It was a question with him whether the sleeplessness was a cause or a result of the inflammation.

By inquiry it was developed that the woman had seemed over anxious about her household affairs, and had a sense of impending disaster, but no solution of the problem was offered.

Dr. McGraw said that within a few days he had been five miles into the country to see a case of typhoid fever, of which there had been several cases in the family or neighborhood. The cause of the disease could be very readily traced to the foulness of the water in the wells of the community. These cases had brought up with fresh interest the whole question of the miserable water supply of the farmers. It was also a question of vital importance to this city how far the butter and milk brought from the surrounding country might be contaminated with foul water, but it was a difficulty he now saw no way of surmounting.

Dr. Shurly said he had been attending a case of typhoid which, in its virulence, resembled the typhoid of the eastern states. The patient was so reduced that all functions but the vegetative were extinct. He had expected other cases in the same family, but none occurred. He thought the books, especially English works, were too prone to consider typhoid fever purely contagious in character, while he believed there were endemic influences modifying the disease in many instances which were confounded with those of a contagious origin.

Dr. Heaton gave some account of typhoid fever as he knew it in the Lake Superior region about Keewenaw Point.

On the north of the Point, he said, was the lake, and a little way back from the shore was a high bluff. A little further back and over a ridge lay the valley of Eagle river, covered with vast forests. When the mine owners began to clear these forests typhoid fever broke out with great virulence. The Cliff mine alone lost seventy-five men, the majority by hæmorrhage from the bowels. His observation led him to the belief that the fever resulted from a combination of causes, chief among which were the clearing of forests, the digging under old houses, or any enterprise which disturbed the accumulated decay of years or centuries.

Dr. Jenks spoke of the peculiarity of the water supply of Goderich, and also its remarkable freedom from malarial diseases, though it was just across Lake Huron from Saginaw, where those diseases were very rife. They did have typhoid fever, however, and no one doubted that the following was the correct explanation of these facts:

The town lies on high ground which rises rather steeply from the lake, and there is almost always a strong breeze blowing, which accounts for its freedom from malarial disease.

The supply of water was from wells, which had their source in a layer of gravel above a stratum of blue clay. In the town was a hollow, and it was in this neighborhood that the cases of typhoid occurred, and visitors were always cautioned against drinking from wells in that vicinity. There was no doubt that the water was contaminated by the surface drainage from the surrounding higher land of the city.

After some further desultory talk, Dr. Eugene Smith reported a case of punctured wound of the lens, the instrument being a sharp piece of small wire. The external wound was about a line from the corneo-sclerotic junction, whence the wire traversed the anterior chamber and pierced the lens. When he saw the patient the aqueous humor had refilled the chamber, though there was some blood mixed with it; still the wound in the lens could be seen. Dropped a solution of atropia into the eye and applied a compress.

Next morning there was marked improvement, the blood being nearly all absorbed, though the lens was cloudy. The treatment was continued for two weeks, when recovery was complete, a most remarkable result, as cataract generally follows injuries of such character.

He also reported a case of enucleation of the eye for trachomatous degeneration. The disease had been called cancer, but he had no difficulty in making a diagnosis, as the neoplastic formation peculiar to trachoma was very marked. He made the operation on account of sympathetic irritation, and was obliged to extend the external angle of the eye by incision, the eyelids had become so contracted, which made the case one of unusual interest.

THEO. F. KERR, M.D.,
Secretary.

Annual meeting Oct. 1st, 1877. Dr. Heaton was called to the chair.

After approval of the minutes the following was submitted as the

SECRETARY'S REPORT.

MR. PRESIDENT, LADIES AND GENTLEMEN :—Your Secretary has the honor of submitting the following report: The Detroit Medical and Library Association was formally organized on the 4th of October, 1876, by the election and installation of officers for the ensuing year. Two informal meetings had been held previously, at the latter of which a Constitution and By-Laws had been adopted and a Provisional Advisory Council appointed to pass upon the credentials of applicants for membership. That council reported at the meeting of Oct. 4th, thirty-four approved applications for membership, and these constituted the original society.

Since that date twenty-three new members have been received by the Association, after approval by the Advisory Council. One applicant was accepted on condition that he comply with a certain technical requirement of the code of ethics, which he refused to do, and, of course, failed to become a member.

Four applications have been rejected. One gentleman, who was elected on application, subsequently refused to sign the constitution, and three members have removed from the city.

We have, then, a *bona fide* membership of fifty three, but seven of these have never been present at a single meeting, and to these must be added twelve more, who have attended three meetings or less, and cannot properly be counted as active members.

It appears, then, that the Association has been sustained by thirty-four active members, whose average attendance has been a little more than eighteen, or about fifty-four per cent.

Soon after the organization of the Association, that is, on the 6th of December, 1876, the editors of the two medical journals published in this city made a proposition to the Association that it assume sole control of their consolidated publications, and issue a single journal for the benefit of the Association. The proposition was accepted and the Association began the publication of the DETROIT MEDICAL JOURNAL, in connection with E. B. Smith & Co., who assumed the business management and two-thirds of the liabilities for two-thirds of the profits, the Association assuming one-third of the liabilities and receiving one-third of the profits and all the books and exchanges.

That some such arrangement should be continued in the future by which the Association should continue to receive about all the new medical literature as it comes from the press is evident enough after the munificent gift of our worthy President to-night.

Articles of incorporation were drawn on the 12th and filed on the 20th of March, 1877, when the Association assumed all the privileges and responsibilities of a corporate body.

During the year the following persons have read papers on the subjects named;

Professor Armor—" Mental Epidemics."

Dr. Johnson—" Report on Physiology."

Dr. Montgomery—" Some Therapeutic Uses of Mercury."

Dr. Jenks—" Ancient Gynæcology."

Dr. Eugene Smith—" Use of Mercury in the Treatment of Iritis."

Dr. McGraw—"The Conservation of Vital Force an Essential Element of Conservative Surgery."

Dr. Eugene Smith—"Abscess of the Cornea."

Dr. Yemans—"At what Period in the Progress of Variola is Contagion Imminent."

Dr. Jenks—"Report on Obstetrics."

Dr. Shurly—"Report on 266 Cases of Vaccination with the 'Griffin Bovine Virus' as occurring in Private Practice."

Dr. McGraw—"On Excision of the Inferior Dental and Gustatory Nerves for the Cure of Neuralgia."

There have been, also, about twenty-five cases reported, and more than a dozen scientific or pathological specimens exhibited to the Association. The discussions following the presentation of these papers, reports, specimens, etc., have been of a wide range, and some of them exceedingly interesting. That portion of your work which has been deemed of general interest to the profession has already been published in the JOURNAL, and needs no further recapitulation here.

Such, in brief, is your record for the first year. It is not for me to disparage or praise. It speaks for itself.

The following is submitted as a synopsis of the

TREASURER'S REPORT.

General Fund.	
Receipts	$132 00
Disbursements	131 85
Balance	$ 15
Library Fund.	
Receipts	$130 00
Disbursements	47 75
Balance	$ 82 25
Due on subscriptions	25 00
Total available funds	$107 25

[To this may be added the gift of Dr. Jas. A. Brown, making the total available fund $307.25.]

The Committee on Nominations then made their report, which, with one or two changes, was adopted, as follows:

For Vice President—H. A. Cleland.

For Treasurer—E. A. Chapoton.

MEMBERS OF COMMITTEES.

Advisory Council—Eugene Smith.
Publication Committee—J. J. Mulheron.
Library Committee—D. La Ferte.

REPORTERS.

Practice of Medicine and Therapeutics—T. N. Reynolds.
Pathology and Microscopic Anatomy—J. D. Munson.
Materia Medica and Medical Chemistry—C. B Gilbert.
Diseases of Women and Children—Jas. A. Brown.
Obstetrics and Physiology—H. E. Smith.

On motion, the society proceeded to ballot for President, which resulted in the election of A. S. Heaton to that chair for the ensuing year.

The Secretary then read the following communication from the retiring President, Dr. Jas. A. Brown:

MEMBERS OF THE DETROIT MEDICAL AND LIBRARY ASSOCIATION:—There being nothing in our Constitution or By-Laws requiring the retiring presiding officer to deliver an address, and as we older members of the profession are not in the habit of doing *more* than is *required* of us, you will not be detained by me.

Knowing that this society is the possessor of more brains than money, it naturally occurred to me that if I had anything to contribute it must be to the money side of this condition of things. I for a moment thought of spending a portion of this small sum in a reception to the society, but believing that you are not "given to eating and drinking," you will allow me to suggest that it be expended by a committee of your creating in the purchase of such books and medical literature as they may deem to be for your advancement.

J. A. BROWN.

The thanks of the Association were tendered Dr. Brown for his generosity, and the Secretary was instructed to make suitable acknowledgement of the same, which was done in these terms:

41 Fort St. West, DETROIT, Oct. 3, 1877.

MY DEAR DOCTOR.—At the annual meeting of the Detroit Medical and Library Association, held Oct. 1, your munificent gift of $200 was received with the greatest enthusiasm. Very general regret was expressed on account of your enforced absence from that meeting, and the Secretary was instructed to convey to you the hearty thanks of the Association for the able and impartial manner with which you had presided over their discussions during the past year, and above all for your unexampled liberality in the donation of so large a sum to be expended in the increase of our library. With the beginning already made, your gift will soon enable us to make a very creditable display in that direction..

The Association, while thanking you for your generosity, likewise hope that your noble example may be speedily emulated by others who have at heart the cause of medical education, as well as the general prosperity of the profession. On behalf of the Association, I have the honor to be, sir,

Yours, most respectfully,
THEO. F. KERR, M.D.,
Secretary.

JAS. A. BROWN, M.D., 43 Lafayette Ave.

Dr. Yemans, on behalf of Judge Campbell, presented two volumes in the original French on "The Natural History of Remedies."

Dr. Kerr, on behalf of Dr. Brown, presented a copy of McCracken's "Michigan and the Centennial."

The books were accepted and the Secretary instructed to make a suitable acknowledgement for them.

THEO. F. KERR, M.D.,
Secretary.

Calhoun County Medical Association.

Agreeable to last adjournment the society convened in the Common Council rooms at the village of Albion, on Tuesday, September 4th, 1877, at 3 P. M. Meeting called to order by the President, Dr. J. H. Montgomery.

At roll call the following members were found to be in attendance: From Battle Creek, Drs. Edward Cox, L. A. Foote, J. H. Kellogg and D. C. Hawxhurst; from Marshall, Dr. J. H. Montgomery; from Albion, Drs. John P. Stoddard, Amos Crosby and A. M. Haight; from Homer, Dr. O. S. Phelps.

After the reading of the minutes of the last meeting, Dr. D. C. Hawxhurst proposed the name of D. J. G. Millspaugh, of Battle Creek, for membership in the society. He was unanimously elected. Drs. F. Wheelock, S. Tuttle and W. O'Donoughue, of Albion, were also elected honorary members of the Association.

The Secretary then read letters from Prof. Theo. A. McGraw, of Detroit, and Drs. Twiss, of Athens, and Green, of Burlington, regretting their inability to be present at this meeting of the Association,

The essayist for the occasion, Dr. Crosby, not being prepared, was excused, but his appointment was continued to the next regular meeting.

Dr. John P. Stoddard, chairman of the Committee on Epidemics and Endemics, made a verbal report, stating that the county, during the last six months, had been most singularly free from any epidemic, unless it might be the *fortunate* good health of the people and the *alarming* lack of occupation by the doctors. In various localities there had been a few sporadic cases of scarlatina, measles, whooping cough, and even diphtheria, but in no case frequent or severe enough to be dignified as an epidemic.

The regular order of business was suspended, when Dr. J. H. Kellogg, of Battle Creek, introduced the following preamble and resolution:

WHEREAS, Dr. M. Gill, formerly a regular practicing physician in this county, has rendered himself obnoxious to the medical code of ethics and to all philanthropic physicians by the use and advertisement of a secret remedy for hemorrhoids, and,

WHEREAS, Said Dr. Gill has taken and is now taking a course to bring reproach upon the regular profession by advertising himself as a regular practitioner, as well as using the names of prominent members of this and other regular societies as references;

Resolved, That we hereby express our entire disapprobation of the course of the said Dr. Gill, and that we refuse to recognize him as a physician in regular standing, and do not allow the use of our names in favor of his secret practice.

These were accepted and referred to the Committee on Ethics, for report at the next regular meeting.

Dr. Crosby then offered the following resolution, which was adopted:

Resolved, That the Committee on Ethics be requested to report at the next meeting of this Association upon the use of secret remedies, including cases in which cures are guaranteed.

Under order of business for voluntary papers and addresses Dr. John P. Stoddard read a paper entitled " Doctors and Druggists—their Mutual Relations and Responsibilities."

The writer introduced his paper by remarking that it might be somewhat doubted by the members " whether this theme was fully in accord with interest of the Association, or appear calculated to advance its highest interests. At first sight this may possibly so seem, but further thought will not fail to show this to be a subject well worthy the thoughtful consideration of every medical gentleman."

" In the term druggist is included both the manufacturer of, and the wholesale and retail dealer in, drugs and remedial agents and appliances of every description.

To-day, more than ever before in the history of medicine, the physician does not act alone and independent in the cure and treatment of diseased humanity. The progressive advancement of mankind in culture and refinement makes necessary a greater division of labor and effort. Specialists are now a necessity, not only in medicine but also in the preparation of medicines. The physician to-day cannot, in the best sense, successfully give his attention to the whole range of medical and surgical practice. To do his best work and discharge his full duty to the culture and demands of the age, the physician has to seek that field of labor in his profession for which his tastes and talents peculiarly fit him. It is only thus that medicine can and does make that advance which to-day makes it the foremost of beneficent professions and the pride of our exacting civilization. If, therefore, at present, the physician cannot give himself to the whole range of practice, *much less can he* devote *any* of his time to the preparation or even to the dispensing of remedial agents. Years ago the doctor was expected to manufacture and supply his own medical *armamentum*. Such will not do now. The modern physician *must* have carefully trained and *honest* purveyors to their wants in the shope of manufacturing and dispensing druggists. These are the sternest necessity of our advanced and progressive profession.

Thus it is that now the physician sustains to the druggist that closeness and dependency of relation that characterizes no other calling among us. In short, no little of the physician's professional reputation and success is in the hands of the vendor of drugs.

Let the doctor prescribe never so skillfully if the medicines are inert or below the standard of strength, his skill and wisdom go for naught, his professional good name is blemished, and the patient's life is endangered or lost."

The writer presented the subject in three divisions, viz:

1. The physician and druggist in relation to the purity of medicines.
2. In relation to patent and proprietary medicines.
3. In the mutual relation of prescribing for the sick

In this paper he presented the first division only—that in relation to the purity of drugs, reserving the others till another occasion. He again alluded to the self-evident truth that the physician, to do his best in combatting disease, in conserving life, must use only pure and efficient medicines. "We all know this, and yet we know equally well that much of the medicine we prescribe is shamefully adulterated and inefficient.

There is in existence a work called the United States Pharmacopœia, which assumes to state the dose of each remedy used by physicians, and from which druggists derive their formulæ for the compounding and manufacture of the articles prescribed. But how few of us dare rely alone on this! Often the remedy thus used would be only a broken reed in our hands. We have too often to assume that the drug is not of officinal strength and feel our way along till we find the proper dose of that particular sample, and then use it no longer in accordance with the directions of the Dispensatory, but according to our, perhaps dearly bought, experience. In the presence of the gentlemen of this Association it is not necessary to enumerate a list of hypothecated drugs. Each one knows that in buying powdered drugs, especially if costly, that there is no assurance that they are pure, but rather to the contrary. A firm largely manufacturing fluid extracts lately averred to the writer that they could buy powdered drugs 20 per cent. cheaper than the crude article. This speaks volumes for the unreliability of manufactured goods.

And right here is where the trouble arises, for occasionally we meet the genuine article, and we are suddenly shocked to find we have prescribed too much. The whole list of powdered drugs must be handled with care by testing first each sample. Dr. Edward Squibb has called the attention of the profession repeatedly to this matter. He mentioned particularly sweet spirits of nitre, chloroform, the ethers, and the whole range of the commercial fluid extracts and sugar coated pills. And those very articles that should, above all others, be pure and of uniform strength, are quite sure to be the ones that oftenest fail us. This unreliability of drugs is what brings the greatest uncertainty and the most unfortunate disappointments into the practice of medicine.

What is the remedy? It will not come from the druggist.

The profession must take the matter into their own hands and work the cure, if, indeed, there be any help. The druggist has become, in our country at least, a strictly commercial man, discarding, in most cases, science and professional pride, and operating in drugs solely for pecuniary profit. Far too few pharmacists have had a professional education in their line, and are therefore generally incompetent to test the purity of the drugs they sell. As long as physicians are content to let druggists sell medicines alone for profit and no questions asked, just so long will this state of things inhere. Our American law does not recognize a "State Board of Examination," such as exists in many European governments, before which each apothecary must pass a satisfactory examination before he can sell drugs. We ought to have a similar regulation in our own country. The profession must press this matter before our law makers, asking first that none be allowed to sell drugs unless he be qualified and licensed to do so, and second, that frequent inspections of drugs be made in each county by competent men appointed by the State. As physicians we should seek to elevate the drug trade above its present merely commercial status, and by law make it more a profession than a trade. This is the rational remedy.

But meanwhile, the physician must insist to his druggist that he sell only the genuine and reliable article, and take no other. We must not excuse ignorance in the seller of so sacred a thing as medicine. It is thought to be a terrible thing if a patient dies from an overdose of medicine, and so it is, but is it less a crime if the patient's life be lost because the physician has been compelled to use drugs below the standard strength, and thus losing time in getting the proper and desired effect, he thereby loses his patient? No, indeed. Physicians should deal with no one who is known to sell inferior medicines. We should shun them, and in every case seek out the most capable and trustworthy dealer in our locality. If it be once known that the profession will only take the best, regardless of the cost, the best will only be supplied.

When physicians seek most of all to buy cheaply, and make purity only a secondary consideration, they work irreparable mischief to their profession, and sooner or later the curse will rest upon their own head and blast their professional success and reputation. Let each physician honor the capable pharmacist but frown down the quack. Let us call his business a learned profession—make it *only* one step lower than our own—make it, if you please, its younger brother, insist upon its close inter-dependencies, and you have taken a long step toward a great reform."

In discussing the paper read, Dr. Edward Cox remarked that the statements made by the writer were not as strong as the facts in the case would warrant. He believed that druggists were often more dishonest than ignorant. He feared that retail dealers often adulterated medicines themselves, and he had found that in his own prescriptions articles other than he had ordered had so often been substituted, either because cheaper or the ordered article was not in stock, that he had latterly very rarely written a prescription, preferring to be at the trouble of compounding his own remedies than run the risk of getting what he did not wish.

Dr. O'Donoghue answered that from a protracted experience as a dealer in medicine, he felt very sure that retail dealers seldom, if ever, hypothecated their drugs. To do so would be too much against their pecuniary interests. He well knew that many medicines were fearfully adulterated and below the officinal standard, but he was very sure the fault, in every case, lay with the manufacturer or wholesale dealer. The people, and too often physicians, wanted cheap or low priced articles rather than pure and costly ones, and this made the temptation great for manufacturers to furnish a cheap grade of goods. He was fearful that governmental interference would make the matter no better, and at present he could see no way to reform this growing evil.

Dr. D. C. Hawxhurst then read a very interesting paper on maxillary tumors, illustrating the same by several crayon sketches. The class of tumors he referred to were those arising from the non-eruption of the permanent teeth. He detailed a number of cases occurring in the practice of English and French surgeons, and then gave at more length a description of a case occurring in his own practice, in which he had the good fortune to devise and make an operation which entirely relieved the trouble and yet did not interfere with the integrity of the maxillary bone to any such extent as did the operation resorted to by the surgeons first referred to. Since a copy of this paper has not yet come into the Secretary's hand, he is unable to better or more fully report an excellent and original contribution.

At the clinical session Dr. L. A. Foote presented a young lad having an enlarged abdomen, accompanied with a slight watery discharge at the umbilicus. He was examined by several gentlemen, but the great diversity of opinions expressed did not materially advance the diagnosis.

Dr. Phelps also reported that the case of Pott's disease presented at the last meeting was progressing satisfactorily towards a cure.

As neither of the gentlemen who were to open the discussion on scarlatina were present, it was resolved to continue for the little time yet before adjournment the discussion of diphtheria.

As the first speaker, Dr. Foote said that "Dr. Wood, in his 'Theory and Practice of Medicine' defines diphtheria as a 'febrile moderately contagious, asthenic disease, without characteristic eruption, and distinguished by a disposition to the formation of false membrane upon the mucous surfaces, especially on the fauces.' There is no other recognized disease having all these characteristics. It is a constitutional disease with a local manifestation.

In treating any disease the physician should study the peculiar manner in which a given disease tends to destroy life. It is plainly his duty to endeavor by all the means that science and art have placed in his hands to avert death, and in this disease death comes from exhaustion and not from suffocation or mechanical obstruction of the air passages. This being the case, the physician should not worry, fret and disturb the nervous system of a little patient who is being rapidly exhausted by a wasting, specific and constitutional disease, by the use of strong caustics, such as nitrate of silver in the stick or carbolic acid. If the membrane be forcibly detached it will re-form. The caustic only coagulates the albumen and does not reach deep enough to prevent the re-formation of the pseudo-membrane.

As the danger in this disease is from exhaustion, the broad indication is a supporting plan of treatment, and as the vital forces begin to flag, stimulate. Hence use iron, quinine, carbonate of ammonia, chlorate of potassium, wine or brandy, beef tea, &c. A judicious selection from this class of remedies, combined with the inhalation of steam impregnated with quicklime, a weak gargle of carbolic acid, if there be much fetor, locally, presents the most favorable chance for recovery. A plan like this seems to be strictly in accordance with the nature and pathology of the disease.

The President, Dr. Montgomery, calling Dr. Cox to the chair, continued the discussion as follows:

" At the last meeting of our society I made a few remarks on the subject of diphtheria, and as this subject is now being resumed, I will briefly add to what I before said. I fully agree with Drs. Foote, Phelps, and others, that the disease is constitutional, and therefore little dependence should be placed on local treatment. Would give muriate tinct. iron and chlorate of potassium in liberal doses. If there was much fever prescribe sweet spirits of nitre and a mild cathartic. Would commence with quinine and beef tea very early in the disease, also diffusible stimulants. Milk punch or wine whey will generally be borne well. Be sure to continue the tonics and stimulants until the patient has fully recovered. During the convalescence the elixir of beef, wine and iron is very beneficial. Inhalations of steam from acidulated water or lime while slacking will give very great relief. As a gargle I prefer the solution of chlorate of potassium, to which may be added a small amount of muriate tincture of iron. I frequently use a saturated solution of nitrate of silver, applied with a camel's hair brush when there is much diphtheritic deposit. Have seen ***undiluted*** carbolic acid applied in one case, but think the application was decidedly injurious. I think it far safer to wait for the gradual absorption of the membrane, as it is a well established fact that a majority of deaths result from exhaustion rather than strangulation."

Dr. S. Tuttle said that it had now been a long while since he had treated a case of this disease, yet years ago, while in active practice, a large number of cases had come into his hands. He suspected that he was ignorant of the latest methods of treatment and newest ideas and theories in regard to the pathology of this dreaded disease, but still he entertained decided opinions in regard to both. His most successful treatment was decided doses of calomel with fly blisters to the throat, conjoined with a gargle of chlorate of potassium. If strength began to fail would give quinine and brandy in liberal doses. He believed if we could, by means of a blister, secure the formation of large patches of pseudo-membrane on the external surface of the throat, we would do very much—even more than in any other way—towards the cure of the disease.

Other remarks were made by Drs. Cox, Phelps and Crosby. This closed a very interesting and profitable discussion.

The President announced that the subject of scarlatina would be continued for the next meeting, and that Drs. M. W. Tomlinson and J. F. Smiley would open the discussion.

It was ordered that the next regular meeting of the Association would be held at Marshall, commencing at 2 P. M. Adjourned.

JOHN P. STODDARD, M.D.,
Secretary.

Correspondence.

Invaginated Intestine—Sloughed off and Passed per Rectum—Recovery.

EDITORS DETROIT MEDICAL JOURNAL.—Having had a very singular and interesting case I thought that I would report the same to you.

August 23d, 1877 was summoned to see Mr. Israel Ferguson, of Howell, æt. 77. Found that he had suffered from severe rigors during the day, accompanied by fever and vomiting with peculiar odor of breath (not stercoraceous, however), pain and great tenderness with swelling (more or less tympanitic) in region of ileo-cæcal valve. Bowels would not move. He suffered from great thirst, which was allayed by free use of ice.

Patient continued in this way until about 29th, when symptoms of collapse came on with an almost unperceivable and intermittent pulse.

Used turpentine and camphor stupes continuously upon the bowels. Gave beef tea ad libitum, milk and whisky every hour; teaspoonful of whisky to two ounces of milk. Alsofive grains quinine once in two hours.

Sept. 20th patient commenced to improve. The bowels moved, pain and tenderness in region of ileo-cæcal valve gradually subsided, vomiting ceased, odor of breath became natural, symptoms of collapse passed off, pulse became regular, soft and full. Continued to improve up till Sept. 19th, when he was taken with pain in lower part of bowels. The pain continued until morning of the 20th, when, upon going to stool, it was ascertained that something protruded from the rectum about one inch, which his daughter pulled away, and summoned me at once. It was examined by two other physicians besides myself, and pronounced to be a portion of small intestine. It was in a partially disorganized condition, and, as previously stated, about 26 inches long. I suppose it must have occurred by invagination of small intestine into the large, followed by inflammation, strangulation and sloughing, with union of healthy portion at same point.

At date of present writing the patient is doing well and having natural passages from his bowels

I have preserved the portion sloughed for the examination of any and all who may wish to do so.

Very respectfully yours,

C. V. BEEBE, M.D.

HOWELL, Sept. 28, 1877.

Abstracts From Exchanges.

Practice of Medicine.

TYPHOID INFECTION.—We are indebted to one of our recent exchanges for the following abstract of experiments, performed by M. J. Guerin. He wished to determine whether the stools in typhoid fever had a poisonous action. He sought more especially to determine whether the dejections of typhoid fever patients contained an infecting matter from the beginning:—

1. Subcutaneous injections of diarrhœic typhoid stools were made on twelve rabbits. Ten of the rabbits died in the course of the first four days, while one died a month after, and one recovered.

2. The heart's blood of a rabbit which had died on the third day after the injection of the typhoid stool was inoculated in another rabbit. This rabbit died on the next day. Injections of fæces which came from individuals suffering from other diseases were without any results.

3. Fæces, intestinal blood, urine, detritus of swollen mesenteric glands, and constituents of intestinal ulcers which came from a typhoid fever patient were inoculated on twelve rabbits. These all died at the latest thirty hours afterwards, with severe general symptoms. Three of them had diarrhœa. Post mortem examination showed no characteristic changes.

4. Material which came from typhoid fever patients (blood, urine, and fæces), and which had been kept four months, was inoculated on six rabbits. All these animals died without showing characteristic changes on dissection.

The conclusions which the author arrives at from his experiments are as follows:—

1. Typhoid stools immediately after being passed contain a poison which kills rabbits in a short time.

2. The blood and urine of typhoid fever patients has the same quality, as does also the detritus of swollen mesenteric glands, and typhoid intestinal ulcers.

3. This property is not lost by keeping the material for months.

4. The fæces of healthy individuals or of those suffering from other diseases do not possess this property.—*Boston Med. and Surg. Journal.*

DIAGNOSIS OF PROGRESSIVE PERNICIOUS ANÆMIA. (*Wien. Med. Presse*, No. 40; *Centralb. f. Med.*, Oo. 26, 1876. *Phila. Med. Times*, Jan. 6, 1877.)—Eichhorst says:

1. Pernicious anæmia may be diagnosticated even in its earlier stages with absolute certainty.

2. Anatomical changes are to be be looked for in the blood.

3. The disease may be considered a disease of the red blood corpuscles, as easily discerned as in leukæmia.

4. The characteristic appearances are, a portion of the red corpuscles are seen to retain their normal size, but are marked by an extreme paleness, with a tendency to crenation and the formation of rouleaux, while others among them attract attention by their small size, which is reduced often to one-fourth the diameter of the well formed corpuscles. These small ones are more deeply colored, and if allowed to roll over under the thin cover glass, their appearance in profile shows them to have lost to a greater or less extent their tri-concave outline.

5. Hundreds of examinations of the blood of healthy and diseased persons failed to disclose any similar changes.

6. With the progress of the disease the proportion of these foreign elements increases.

VACCINATED AND UNVACCINATED.—(*Sanitary Record*, Dec. 9th, 1876) says that in the last weekly return, "it was stated that in the present year among 31,360 unvaccinated children of the ages of 1–5, 35 were certified to have died of small-pox; while one only out of about 317,081 vaccinated children of the same age died of this disease. In this one case the small-pox appeared eight days after the vaccination, so that, according to Mr. Marston, the infection had been received six days before the latter."

The Influence of Heat on Mortality at Different Ages.—The *London Lancet*, in some comments on the weekly returns of the Registrar General of England, calls attention to the influence of heat upon the mortality of different ages.

The deaths of persons aged twenty years registered in London in the five weeks ending July 1st, 1876, averaged 613, whereas they had increased to 1215 in the third week of July. The deaths of persons aged upwards of twenty years averaged 665 in the five cool weeks, and were 663 in the third week of hot weather. Among young persons between five and twenty years the mortality increase due to heat was eighteen per cent. Among children between one year and five, it was twenty-three per cent., while among infants under one year, it was so great as 185 per cent. Most of the deaths of infants were due to diarrhœa, but fully sixty per cent. was due to heat alone. Seasonable weather, whether it be cold in winter or heat in summer, inevitably raises the death rate.

Cold in winter is most fatal to elderly persons and adults exposed to its influence. Intense summer heat is only fatal to infants, and in a less degree to children, while it exercises but a slight effect upon the mortality of adults.

Alkalies in Bread—A Cause of Disease.—Dr. Jas. Ford *(Cin. Lancet*, Jan., '75*)*, presents certain facts from which he concludes that

1. All alkalies taken into the system in excess of the normal supply which the food is supposed to furnish, are deleterious to health.
2. Alkalies when in the blood in excess, increase the capacity of albumen for oxygen.
3. Albumen, fibrin and caseine are dissolved and held in solution by the alkaloids and their carbonates.
4. These alkalies are blood alterants and diuretics, and have the power, if taken before meals, of reducing obesity.
5. When continued, the albumen of the blood and of the tissues becomes oxidized—its sulphur, under the form of sulphuric acid, unites with the alkali and probably with the chang-

ed protein compound, and is eliminated by the kidneys, and induce (Waring) a cachectic condition of the system.

6. They act as slow *poisons*, impair the plasticity ot the blood and destroy, or cause the nutritive elements to be eliminated, without properly supplying the waste in the tissue.

7. Are not these causes sufficient to account for the change in type of fever—the terrible gangrene of the teeth—the diminished secretion of milk in the female —the strumous diathesis, and all that class of diseases arising from an impoverished condition of the solids and fluids of the body ?

PHYSICAL DIAGNOSIS. *(Medical Record*, Jan. 50, 1877.)—Dr. E. Holden gives a short description of an instrument which he thinks may facilitate the early detection of phthisis, and thus increase the chances of cure by medication. It consists of a soft rubber tube, ⅝ of an inch bore and two feet long, furnished with simple end pieces of thin metal of ¾ inch bore. A forced expiration or inspiration through the tube produces a rushing noise at its extremity. Such is the instrument required. If, now, the patient respires through this, the physician's ear being applied to the chest, and particularly to the supra-scapular space, the rushing sound is transmitted with clear, resonant volume. Disease, however slight, exaggerates the sound, alters the pitch, or changes it in proportion to the solidity of the conducting tissues. The respiratory murmur is singularly magnified, and in thin persons comparisons of the two sides may be necessary to prevent misinterpretation of the signs. In fine, the instrument intensifies the sound of vesicular dilatation, whether in a normal or morbid state. It intensifies the tubular sounds, which are sometimes drowned by the healthy murmurs, and it exaggerates the evidences of air in cavities.

ALBUMINURIA IN DELIRIUM TREMENS. (*Berlin Klin. Wochenschrift*, No. 32, 1876. *Medical Times*, Jan. 6, 1877.)—Dr. Weinberg, in thirty-three per cent. of one hundred and fifty-six carefully examined cases of delirium tremens, found a temporary albuminuria, which held as to its occurrence a close relation to the delirium. His results are thus summed up :

1. The appearance of albumen not only coincides with the occurrence of delirium, but the intensity of the latter, as well as its disappearance, marches hand in hand with the increase and diminution of the former.

2. In all the cases in which the symptom was taken into account no complicating disease nor high temperature nor frequency of the pulse nor evidence of renal disease was present.

A BRUNONIAN PRESCRIPTION FOR A HYPOCHONDRAIC.—The following is an exact copy of a prescription given by Dr. John Brown in 1775 to a patient. This physician, it will be remembered, was the author of the famous Brunonian system of practice which for so long a time held such powerful sway over the profession. A fair idea of the system may be obtained from the prescription:

"For breakfast, toast and rich soup made on a slow fire; a walk before breakfast, and a good deal after it. A glass of wine in the forenoon from time to time. Good broth and soup to dinner with meat of any kind he likes, but always the most nourishing. Several glasses of port or punch to be taken after dinner till some enlivening effect is produced from them, and a dram (of whisky) after everything heavy. One hour and a half after dinner another walk. Between tea time and supper a game with cheerful company at cards or at any other play never too prolonged; a little light reading; jocose, humorous company, avoiding of Presbyterian ministers and their admirers, and all hypocrites and thieves of every description. Lastly, the company of amiable, handsome and delightful women and an enlivening glass."—*Ex.*

VIRUS.—VACCINIA AND GLANDERS.—The study of virus is of course much more interesting. Fresh vaccinal virus subjected for more than a week to strongly compressed oxygen (50 atmospheres) retained all of its power. The pus of glanders, submitted to the same influence, rapidly killed the horses in whom it was inoculated. Moreover, the compressed oxygen having killed the living agents which could cause the putrefaction of th [illegible], the latter were kept for a long time during the great summer's heat, and still preserved all of their power. Accordingly, neither glanders nor vaccine owe their virulent properties to living beings or living cells; there is in them a substance, which, by this character, resembles diastasic matter. This conclusion is not in contradiction to the fact that the virulent action of the liquids of vaccinia and glanders resides in the corpuscles which are suspended in them, for the toxic matter can either be in a particular state of precipitation, or, though dissolved, still exclusively impregnate the cells, as the hæmoglobin of the blood, so soluble in serum, is still exclusively fixed in the globules.

MALIGNANT PUSTULE, CHARBON ON SONG DE RATE, MURRAIN.—Through the researches of M. Davaine, pathologists have accepted the idea that these affections are due to the development in the blood of myriads of little beings known by the name of bacterides; that it is a form of micro-parasitic disease, or better, a sort of intra-sanguineous fermentation, determining death. The action of compressed oxygen seems to militate against this opinion, for the virulency of a very thin layer of such blood, submitted to the action of oxygen at high pressure, was not at all weakened, as was manifested by the death of several successive generations of inoculated guinea pigs, and yet the blood of these animals did not contain any bacterides. As these results were so different from the generally received opinions, I wished to try an experiment by an entirely different method. Infected blood filled with bacterides having been sent to me by Prof. Trasbot, of the school of Alfort, I added to it, drop by drop, and with great precaution, absolute alcohol, until I had about quadrupled the former liquid; the sort of mush thus formed was filtered, and the coagulum, well washed with alcohol, was rapidly dried in vacuo. Now, a fragment of this dried substance killed an inoculated guinea pig in less than a day; the blood of the latter caused the death of another animal of the same species, and even of a dog, and this manifest virulency was displayed in several successive generations of inoculated animals.

Now, bacterides could not be found in the blood of any of the animals after the one poisoned by the alcoholic precipitate. The remainder of the latter being exhausted with water, I convinced myself that this liquid carried off in solution the virulent principle, which can be again precipitated in the form of very light white flakes, by the addition of alcohol. But these successive treatments seemed to diminish its power, for the last precipitate could not kill dogs, and fatal effects in guinea pigs occurred only as far as the third series of inoculations.

From all this, at the present time, we can only conclude that the affected blood in these affections contains a toxic and virulent principle which resists the actions of compressed oxygen and alcohol, and can be isolated after the manner for diastase. The questions which I am now studying are: is this principle confined to the bacterides themselves; has it been secreted, so to speak, by them, and does it enjoy this hitherto unknown property of products of secretion, that of propagating itself in living beings; is its virulence something more than that of the bacterides alone, so that this infected blood would conceal two causes of death.

PERITONITIS IN CHILDREN. *(Memor, 6 Heft., S. Kersch., Prague,* 1876. *Allg. Med. Cen. Zeitung,* Sept. 9, 1876. *Boston Med. and Surg. Jour.,* Feb. 1, 1877.*)*—Two symptoms are quite characteristic of the disease. First, there is the impossibility of lying with outstretched legs, the child having both flexed upon the abdomen, and consequently cannot be made to stand upon his feet. The second important aid to the diagnosis is the respiration. The sharp pains which arise in both hypochondria before even the evidences of a peritoneal exudation are evident, make inspiration very difficult, and if bronchial catarrh is present coughing is impossible.

Expiration goes on, unimpeded. The patient can cry quite loud, but the pauses between the cries are long, being occupied by a series of very short inspiratory acts. This symptom is never absent. The prognosis of the disease is not as grave as in adults. In little girls sterility remains, notwithstanding that they may otherwise be restored to perfect health.

His treatment consists in quinine, as many grains as the child is years old, once or twice daily, and the application of leeches, followed by cold water dressings, which must be rapidly changed. Morphine is given symptomatically.

For large exudations the trocar must be employed, nor must its use be too long delayed, as by the long continuation of the fluid, œdema of the limbs is apt to ensue, and by pressure on the large abdominal vessels, a new exudation is excited.

In these cases diuretics and diaphoretics are powerless unless preceded by the use of the trocar, and the wound should remain open, as a second puncture is often necessary.

ON TEMPERATURE IN ECLAMPSIA. *(Theses de Paris,* 1875. *Brit. Med. Jl.,* Mar. 31, 1877.)—M. M. Diende and Herbart bring new facts in support of the opinions urged by MM Bourneville and Budin, that in eclampsia the temperature rises from the beginning to the end. If the disease is to terminate fatally the temperature continues to rise and reaches a very high figure. If the attacks disappear the coma diminishes or ceases, the temperature will abate progressively, and reach its normal grade. In uræmia the temperature falls progressively.

The observations of Deinde and Herbart seem to show, moreover, that the number of paroxysms is less important, from prognostic point of view, than the grade of temperature, which is everything. Accordingly, the physician who carefully takes the temperature every hour or two will be materially aided in determining his prognosis and treatment. Temperature tables of the numerous cases which have been relieved by every drug under the sun would be highly consoling and instructive.

THE RALE MOUILLE. *(Brit. Med. Jl.,* Mar. 31, 1877.)—Dr. Millon calls attention to the presence of a special rale in pulmonary affections, which he calls rale Mouille, and which has, in his opinion, the highest importance from the point of view of diagnosis and prognosis. As to diagnostic sign, it denotes the passage of pneumonia from the stage of red hepatization to grey softening and to purulent infiltration of the pulmonary tissue.

her strength, while in the others the success was far less satisfactory.

Dr. Gowers related one case in which a favorable change took place for a time, but the patient eventually died.

Dr. Greenfield spoke of another in which the symptoms became worse under the phosphorous.

Dr. Goodhart communicated the details of one case in which the general health improved, but the glands remained unchanged. The patient was still living.

Sir William Jenner sent notes of three cases, in the first of which, after four months treatment, no benefit could be observed, in the second, the symptoms were aggravated, and in the third, after two months treatment, the patient died.

Dr. Moxon's experience was of the worst, as out of thirty cases he could not report one in which benefit appeared after the use of this remedy.

From these details it is apparent that the good expectations raised by the capital results of the phosphorous treatment in Dr. Broadbent's first case can now scarcely be held, although future results may be modified by employing the medicament in some particular way as yet untried. Up to this time it has usually been given in capsules, in doses of gr. 1–30, thrice daily, as in the pill form it was found perfectly useless, since the pills passed from the body unchanged.

Its action upon the kidneys must also be taken into consideration, for in many cases a marked fatty degeneration had already taken place at the time of death. The grand difficulty in the disease is our want of satisfactory pathological knowledge of its nature, and until such is obtained our chance for a rational and successful treatment is only problematical.

CROTON-CHLORAL AND ITS USE. (Dr. E. Sherritt, *Lancet. Medical and Surgical Reporter*, Jan. 20, 1877.)—It is of greatest service in neuralgia of the fifth nerve, and in many cases appears to act as a specific.

2. Its effects and benefit are most favorable in the neuralgias of comparatively young patients, especially in the headaches

of anæmic women or girls, in which class cure or relief was obtained in 86 per cent. of the treated cases. About the climacteric period success was obtained in only 50 per cent., while in later life the favorable results again rose to 60 per cent.

3. At the climacteric period bromide of potassium seems to be more reliable.

4. Headaches in patients with marked hysterical symptoms are rarely benefitted; the presence of hysteria always makes the success of the drug very doubtful.

5. In hospital out-patient practice he prescribes five grains thrice daily in half drachms of glycerine and water, and if not sufficient to produce effects, four times daily. Elsewhere he gives the same dose every two, three, or four hours, according to the urgency of the case.

6. There does not seem to be much danger in large doses of croton-chloral. Dr. Ringer has given it to a patient in five grain doses every hour for a fortnight, and Dr. Liebreich a sleeping draught containing a drachm and a half of the remedy.

7. Usually no unpleasant effects are observed after ordinary doses, though giddiness, headache, and vomiting have occurred in a few cases. If taken immediately after meals, emesis will usually cease.

. AMMONIA IN ACUTE RHEUMATISM. (*Hosp. Gaz.*, July, 1877.)—Dr. Lewi, of the Albany Hospital, Albany, recommends, from the experience which he and Dr. Hall, his predecessor, have had, the employment of aq. ammonia in the treatment of acute rheumatism. The average duration of a series of cases in which this plan was adopted was nine and five-eleventh days. The remedy is prescribed in six drop doses, diluted with common water, and is given every three, four, or six hours, according to the severity of the attack. Dr. Lewi claims that

1. The liability to cardiac complications is lessened.

2. That the remedy is quickly eliminated from the system.

3. That it causes a copious discharge from all the excretors of the body.

4. It lessens febrile movements.

5. It increases the excretion of urea from the kidneys.

6. It favors the excretion of the products of all inflammations, and in this instance forms a lactate of ammonium with the poisoned synovial fluid, which is rapidly taken up by the excretory organs of the body and discharged from the system.

SIMPLE METHOD OF TESTING THE PURITY OF CHLOROFORM. (*Phila. Med. Times. Am. Med. Bi-Weekly,* June 9, 1877.)—Dr. Leucke, of Strasburg, gives the following simple method of testing the purity of chloroform: Immerse a small piece of thin white blotting paper into the chloroform and then let it dry in the air. As soon as the chloroform has evaporated, the paper will not present the least smell if the chloroform is pure. If there is any acid smell perceptible, it indicates the presence of butyric acid in the chloroform, and as a rule has the strong characteristic of that substance.

INCOMPATIBILITY OF CALOMEL WITH CERTAIN BROMIDES.—(*Virg. Med. Monthly. Am. Med. Bi-Weekly,* June 9, 1877.)—Mr. N. A. Kuhn has studied the action of calomel with the bromides of potassium, sodium, ammonium aud zinc, and finds that a portion of the calomel is converted into a soluble mercuric salt, a considerable portion of the calomel, under some circumstances, being thus changed. This new formed salt is poisonous, a kitten having been killed by some of it in the course .of an hour and a half.

Obstetrics.

TREATMENT OF GINGIVITIS PUERPERALIS.—(*Bulletin General de Thirapeutique.—Louis. Med. Times,* June 9, 1877.)—Drs. A. & D. Pinard, call attention to the frequent complication of pregnancy. Mild cases present the following appearances: the gums are redder and more congested than in the normal condition, they are tumefied, the interdental free border is exaggerated [illegible] normal festooned appearance and covers in part [illegible] condition is more marked anteriorly, than in [illegible] molars. Pressure upon the tumefied portions provokes hemorrhage. In a most advanced stage, the teeth lose their solidity, can be moved laterally and sometimes even yield to perpendicular pressure; sometimes they are pushed out of their sockets. Mastication is more or less painful and loss of blood occurs to a greater or less degree. Pain is rarely severe. The remote cause of the affection is pregnancy; what the proximate cause may be is not yet demonstrated. It appears usually towards the fourth month of pregnancy and but rarely disappears before a month or two subsequent to delivery, and then particularly in those who do not suckle their infants. The authors have employed solution of iodine, of glycerole of tannin and chlorate of potassium, which, though producing good effects, fail to bring about a rapid cure. Chromic acid is sometimes useful, but must be used with caution. The following solution of chloral has given good results. ℞., chloral hydrat, tinct. cochlearisæ aa. q. s. m. The teeth must be thoroughly cleaned of tartar, etc., before this application is made.—(*Phil. Med. Times.*

RELATIONS OF THE URINARY ORGANS TO PUERPERAL DISEASES.—(*Am. Journal of Obstet.*, April, 1877.)—Dr. Chamberlain, in a lengthy paper upon the above subject, shows the frequency of affections of the urinary organs during and immediately after gestation and formulates the following conclusions:

1. Acute erysipelatous inflammation at the external genitals may ascend to the kidney, sometimes by the inner and sometimes by the outer surface of the urinary tract.

2. The blood of the parturient woman, saturated with fibrine and poor in hæmaglobin, predisposes to diseases of the excretory organs—the kidneys and liver. With a sufficient exciting cause acute fatty metamorphosis (he employs the latter word in preference to degeneration on account of the rapidity of the process) takes place. Fatal cases only are demonstrable, but minor grades of the process are probably not unfrequent.

3. Lymphangitis limited (cellutitis) and lymphangitis diffuse may mechanically induce acute œdema of the kidney in the puerperal woman by obstruction of the ureters. Diphtheritic or other inflammation involving the muscular coat of the blad-

der produces the same result. However excited œdema of the kidney tends to rapid degeneration, both of the tubular and inter-tubular structure.

4. Diffuse lymphangitis, commonly attending septic processes, by rapid destruction of the hæmaglobin, tends to the same result, while ulcerative endometritis, suppurative metrophlebitis and cellulitis, tending to pyæmia, not unfrequently are productive of metastatic suppurative nephritis.

5. The condition known as uræmia tends to develope peritonitis in parturient woman.

SUCCESSFUL CASE OF CÆSARIAN SECTION. (*Am. Jl. Obstetrics*, Oct. 1877.)—Dr. E. W. Jenks reports a successful case of Cæsarian section which was performed after the patient had been in labor for seven days. He was called upon to operate by Dr. Flintermann, who had been summoned to the case within the previous hour. The latter gentleman had learned that the patient was twenty-four years old, that the liquor amnii had been discharged seven days before, that the lady had been in charge of women till the afternoon of the operation, and that then a midwife was called, who, discovering an arm presentation, at once sent for the doctor.

He found that the left shoulder was presenting at the brim of a rachitic pelvis, which was so deformed that the conjugate diameter of the superior strait did not exceed two inches. Dr. Jenks, in verifying the diagnosis, succeeded in just inserting three fingers above the brim, but could not possibly crowd his hand beyond it. Version was therefore impossible, and the angularities of the parturient canal, caused by the pelvic distortion, prevented any kind of instrumental delivery per vaginam, for there was no opportunity to carry any instrument above the superior strait and at the same time to have any portion of the hand in the vagina as a guide.

The usual steps were taken in operating, and on opening the uterus by an incision of about seven inches, a fully developed and well nourished dead fœtus was easily removed. The child had died [illegible] hours previously, [illegible] that an earlier operation would [illegible] The placenta, adhering to the fundus, was readily extracted through the incision by the uterine contractions, and with it came a quantity of putrid fluid, similar to some which, before the operation, flowed from the vagina, producing a horrible stench. No decomposition of fœtus or placenta was discovered, so that the liquid was probably due to old blood clots in the uterus.

The peritoneal cavity and uterus were carefully sponged out, and as considerable blood flowed from the uterine incision, the latter was closed by four deep silver wire sutures, passing from lining to covering; the sutures were all twisted and the ends turned down into the line of the incision, and it was hoped that during the process of involution it might be possible for them to be discharged by the uterine canal in a similar manner as is claimed are sutures put into incised or wounded intestines. After rapid but careful sponging of the abdominal cavity, it was closed by deep silver and superficial silk sutures. The woman rallied well; some hours after the operation the temperature rose to 103°, which was the highest temperature attained at any time. The woman is as strong and well as ever before in her life.

The doctor believes that the success was largely due to the facts that the liability to putrid infection was diminished by the thorough sponging of the interior of the uterus, thus ridding it of the products of decomposition rather than allowing them to pass per vias naturales; that there had been no intra-uterine manipulations, on account of their impossibility before the operation; and that the abdominal cavity was open but a short time, the introduction of the sutures into the uterus completely stopping the flow of blood, thus putting away the necessity of *waiting* for the cessation of hæmorrhage before closing the external wound.

CONCEPTION IN CASES OF HYPERTROPHY OF THE CERVIX UTERI.—In his remarks upon a case presented by Dr. Cleveland to the Cincinnati Obstetrical Society, Dr. Reamy said:

It is not likely that the discharge in this case was furnished from the uterine cavity. It was either from the cervix, or, very probably, from the vagina largely. The vaginal glands, under the friction of such cases, frequently pour out an abundant secretion.

I am convinced that, in a larger proportion of cases than we dream of, semen enters the cervical canal during congress.

I have known several instances in which, upon the testimony of intelligent and trustworthy parties, conception never occurred except when special positions of the cohabiting parties were assumed. I know a man and wife, the parents of four children. At the time conception occurred, in each instance, the act was performed in the standing posture. Six years of fruitless married life had passed. This plan was adopted at the suggestion of an ignorant quack. After the birth of the first child, four years elapsed without further offspring. The same plan was resorted to and conception followed.

Such cases can only be explained on the hypothesis of a change of posture facilitating the direct entrance of the spermatozoa into the uterine cavity.

Inflammation of the cervical and vaginal mucous membrane is well known to be far more common than that of the body. It is quite common to find the most extensive disease absolutely limited by the os internum, the ovaries and uterus proper remaining even for years in a perfectly normal condition so far as structure is concerned. Of course, by sympathy, there is often more or less change of function.

In such cases, if conception can occur, it is potent in the cure of the cervical disease. It can, under such circumstances, rarely occur, unless the spermatozoa can be thrown beyond the blighting influence of the vile discharge.—*American Journal of Obstetrics.*

Physiology.

PROPERTIES OF THE HUMAN GASTRIC JUICE.—(*Lyon Med.*, May 13, 1877; [illegible] July 16, 1877.) This subject has been lately [illegible] Richet upon the person of the patient [illegible] performed gastrostomy. He [illegible] The acidity of th[illegible] food, is equivalent t[illegible] grammes of f[illegible] and [illegible] the stom ach. Wine and alcohol increase, but cane-sugar diminishes it. 3. If acid or alkaline matters are introduced the gastric juice tends to return to its normal acidity. 4. The mean duration of digestion is from three to four and a half hours or more. Food does not pass successively but in masses. 5. The existence of free hydrochloric acid in the gastric juice was proved by a modification of Schmidt's method. 6. It is possible to extract all the lactic acid contained in the stomach and to prove that there is one part lactic acid to nine parts hydrochloric acid. 7. Following the method of Berthelet, that is, by agitation with anhydrous ether and deprived of alcohol, it can be shown that lactic acid is free in the gastric juice. 8. The question so long in controversy as to the nature of the free acid in the stomach seems almost solved, and it may be said that in every 1000 grammes of gastric juice there are 1-53 grammes of hydrochloric acid and 0.43 of lactic acid.

Gynæcology.

A NEW MATERIAL FOR DILATION OF THE CERVIX UTERI.—*Med. Record*, July 14, 1877.) Dr. Sussdorff, after an experience of two years in the use of lints made of the root of the Tupelo tree, heartily recommends them to the profession as being far superior to sea-tangle or sponge. The tree is a species of Nyssa indigenous to the United States and of the five different kinds; the Nyssa Aquatica is to be selected for making the best tents. It is a Southern species and grows in swamps and wet places of Georgia and Florida. The roots are the parts used and though very heavy when first dug up, after being cut into smaller pieces and exposed to dry heat they become dry and light as cork. Messrs. Tiemann & Co. of New York, now prepare them compressed to a graduated scale. The advantages claimed for these tents are, that: 1. They are easily introduced, being smooth and firm. 2. They will not easily fall out of place as they are very light and soon absorb moisture sufficient to retain their place. 3. They are probably of antiseptic nature themselves or at least they will not decompose the fluids with which they are in contact; have none of the offensiveness always accompanying sponge or sea-tangle, and being purely vegetable, are not likely to induce septic poisoning or local irritation. 4. The rapidity with which they will expand when in contact with the tissues and secretions of the uterus is perhaps one of their chief advantages. This rapidity can be controlled by selecting tents compressed to different degrees; thus one compressed to one-fourth of its original size, would not dilate so quickly as one reduced to one-tenth of the same.

BLEEDING FROM THE VAGINAL WALLS AFTER DELIVERY.—(*Obstetrical Journal Great Britain and Ireland*, July, 1877.)—Dr. Budin, in the *Progres' Medical*, records several cases of hemorrhage from the vaginal walls after delivery and points out the signs by which such hemorrhage may be distinguished from that derived from other sources. As hemorrhage from the vulva or vagina may be of serious or fatal consequence, it is important in reference to treatment, to distinguish it from that proceeding from the uterus. Hemorrhage from the clitoris appears immediately after release of the head and before the expulsion of the shoulder; hemorrhage from the cervix does not appear in any quantity till after the expulsion of the trunk, the vagina being distended until that time. A large patch of blood over the shoulder, side and breech indicates hemorrhage from the anterior vaginal wall; from rupture probably of a varicose vessel and taken in conjunction with firm contraction of the uterus, it will be found to be diagnostic of this condition.

Proceedings of the State Board of Health.

The regular quarterly meeting of the Michigan State Board of Health was held in Lansing, on Tuesday, October 9. The members present were:

Prof. R. C. Kedzie, Lansing; Homer O. Hitchcock, M.D., Kalamazoo; Henry F. Lyster, M.D., Detroit; Hon. LeRoy

Parker, Flint; Rev. D. C. Jacokes, Pontiac; Henry B. Baker, Secretary.

Dr. Kedzie, Committee on Poisons, etc., read an important report on labeling medicines. He gave many instances of poisoning by taking the wrong medicine through mistake because it was not labeled. He urged that every medicine, and every injurious substance which may be mistaken for medicine, should be distinctly labeled. "Never administer as medicine any substance of the composition of which you are ignorant or in doubt." The paper was accepted with thanks, and a committee, of which Dr. Kedzie is chairman, was appointed to investigate another branch of the subject in reference to danger from the dispensing of drugs or medicines by unqualified or inexperienced persons. This committee is to confer with the Michigan Pharmaceutical Association, which has already given attention to the subject.

Dr. Baker presented tables, diagrams, etc., on the subject of the death rate as relates to age, climate, etc. He gave tables and diagrams for the various states and territories of the Union.

Hon. LeRoy Parker, chairman of the committee on legislation, made a brief report relative to the subject of boards of health in cities and villages, and mentioned that since the last meeting considerable progress had been made in securing health officers for such boards. The Secretary stated that the progress in this direction had been great, and it was largely due to Mr. Parker's efforts.

Dr. H. F. Lyster read a continuation of his paper heretofore presented on the subject of healthy homes. He considered the subject mainly with reference to their location and the measures to be taken to secure good drainage, and traced much of the ill health of people to dampness in and about their dwellings. He had issued a circular to the correspondents of the board, and with this paper he presented the substance of about forty repiies received, showing the nature of the soil, practice as to tile-draining, sources of drinking water, character of cellars, disposition of decomposing organic matter, etc., about the homes in the several localities. He recommended that wherever the soil is not dry there should be tile-drains around the house or under the cellar.

In the discussion which followed, Dr. Baker deemed it important that such drains should never communicate uninterruptedly with a sewer, which may contain sewer gas, which will thus permeate the house; but the connection should be through an open-air space or otherwise freely ventilated, on the house side of the trap.

Dr. Kedzie said that if box drains be used they should be placed with one corner down, so as to be self-cleansing.

Dr. Kedzie read a paper on persistence in efforts to resuscitate the drowned. He reported a large number of cases where persons had been resuscitated a long time after they had apparently ceased to live. He claimed that deaths are constantly occurring for lack of thorough efforts at resucitation, and that whenever such efforts are made they should be continued at least two hours. He cited one instance where only after six hours of constant work did symptoms of life appear, and yet this person was completely restored.

The Secretary read an outline of a report of the work of his office during the last quarter. It included the distribution of about five thousand copies of the document on "Restriction and Prevention of Scarlet Fever," and sixteen hundred copies of the Fourth Annual Report of the Board; the printing of six thousand copies of the document on the "Treatment of the Drowned." Much time had been given to the compilation of "Weekly Reports of Diseases," and a large amount of miscellaneous correspondence and other business had been transacted.

Hon. LeRoy Parker read an abstract of papers read before the public health section of the American Social Science Association, at Saratoga, which he had attended in the interests of public health in Michigan.

Dr. Hitchcock presented a report and abstract of papers read at the recent meeting of the American Public Health Association at Chicago.

At the last meeting ex-president Hitchcock presented an address by title, and at this meeting it was read. The subject was: "Heredity in its relations to the public health, and to legislation in the interests of public health."

A valuable paper on the "Diet of Infants," by Dr. Arthur Hazlewood, of Grand Rapids, an ex-member of the Board, was accepted with thanks.

The Secretary read communications from Dr. G. W. Topping, of De Witt, relative to reports of prevailing diseases; from Dr. O. Marshall, of Lansing, on the subject of opium eating; from Dr. Edward Dorsch, of Monroe, on lead-poisoning from tin cooking utensils lined or glazed with lead; from Dr. C. W. Marvin, of Ithaca, relative to the recent increase of deaths from cancer; from Dr. J. D. Hull, of Allegan county, relative to drainage in his locality; from Dr. Batwell, of Ypsilanti, relative to sickness from damning the Hudson river; from Dr. Charles H. Fisher, of Rhode Island, giving formula for preparation and an account of the first use of sulpho-carbonate of soda as a preventive in scarlet fever.

Dr. Lyster presented a paper on baths and bathing. He gave a history and description of all kinds of baths and their effects on the human body. His paper was also accompanied by numerous replies on this subject from correspondents of the Board to a circular which he had issued.

The Secretary presented his annual report in relation to the property of the Board. During the year additions had been made to the library—97 by purchase and 244 by gift and exchange. The library now has 931 numbers.

The expenditures by the Board for the fiscal year were as follows:

Chemical analyses	$ 10 00
Engraving, drawing, etc	103 00
Expenses of members attending meetings	135 20
Other official expenses	135 15
Instruments and books	458 71
Paper, stationery, etc	277 68
Postage—office	608 24
" —members	10 25
Printing and binding	451 50

Secretary	$2,000 00
Special investigations	18 21
Miscellaneous, (including express, boxing, etc.)	53 37
Total	$4,324 31

Very respectfully,

HENRY B. BAKER.

Editorial.

NOTICE TO CORRESPONDENTS, ETC.—Communications intended for publication, and books for review, should be addressed to "Editors of Detroit Medical Journal, care of E. B. Smith & Co., Detroit."

All remittances of money, all letters on the business of the JOURNAL, pertaining to subscriptions or advertisements, should be addressed exclusively to the publishers, E. B. Smith & Co., corner Fort and Griswold Streets, Detroit, Mich.

Original Articles, Reports of Medical Societies, Observations, Correspondence, News, etc., of general interest, are respectfully solicited from every source. Articles should be practical and carefully prepared.

The Editors will not be responsible for statements made over the names of contributors.

Specialism in Medicine.

Prof. Frank H. Hamilton, in a recent address before the alumni of the medical department of the University of Buffalo, touches upon the vexed question of specialism in medicine. True to the instincts of the accomplished surgeon he arrays himself in opposition to the practice, and of course advances some very cogent arguments in support of his position. The question of the demand for or usefulness of specialties is certainly one of much interest to the profession, and admitting of much argument *pro* and *con*. Does an undivided attention to a special organ conduce to the best interests of the patient and to the consequent advancement of science? At first glance the affirmative of this question would seem to be unquestionable, but a more serious consideration of the matter tends to the creation of some doubt. There are reasons why the general rule that success is most likely to follow concentration of aim and purpose should meet with an exception here. Intimately and deftly interdependent as the various organs are, it is impossible to regard any single one to the exclusion of all others. Although our specialists repudiate any tendency to do this they nevertheless tend in that direction. It is one of the infirmities of the human mind that leads them to do so. To listen to or to read the discussions of an ophthalmological congress one would almost suppose that the eye is the organ *par excellence* of the body. A gynæcological society, on the other hand, would lead one to suppose that the uterus is the grand center toward which all the other organs gravitate and around which they revolve.

Prof. Hamilton aptly refers to this tendency:

> The human system is a wonderfully complicated machine. No one part is independent of the other; the heart suffers with the brain and the brain with the heart; the nerves and arteries are distributed and woven into every part of the fabric; and while it is necessary for the physician to study every organ in detail, it is equally necessary that he should study it as a whole, when all the parts are put together and are in motion.
>
> The specialist discovers a pimple in the ear, and limiting his observation to what the tube of his otoscope discloses, he fails to discover that there is a pimple on the nose also; and he does not, therefore, recognize the fact that the pimple in the ear implies a fault in the general system, nor that, while it may contribute to the comfort of the patient to extinguish the pimple by a local application, it is sure to be followed by another here or elsewhere, unless the remote or constitutional cause is removed. The outward sign may be blotted out, but the latent poison still courses through the veins undisturbed. Specialists will no doubt admit the truth of this general statement as to the constitutional origin of many local maladies; and they may perhaps consider it an unjust imputation upon their good sense that I venture to question their judgment and their practice in this particular. Then they must hereafter speak in a way not to be misunderstood. I read their reports of cases; I listen to their discussions, and I have frequent occasion to observe their practice, and I notice constantly that they give very little attention and credit to general treatment as compared with local treatment. I have listened an hour to the discussion of a proper treatment of trachoma,—granular conjunctivitis,—conducted by eminent ophthalmologists, in which a variety of local applications were considered and their comparative value carefully estimated, but not one word was said about general treatment or hygiene. Yet every practitioner knows, and perhaps they knew also, that in nineteen cases out of twenty, if not in every case of this form of chronic disease, and probably in the vast majority of all chronic diseases, their existence depends wholly upon a general dyscracy, and that while local medication may

be useful it is by no means an essential part of the treatment. It is sponging out a wound to stop hæmorrhage and neglecting to tie the artery that supplies the blood; it is Mrs. Partington again mopping the Atlantic from her door-step.

There is, I observe, a natural and a most irresistible tendency in specialism to attach undue importance to the local lesion, and to put it in the relation of cause, when it actually stands in the relation of effect. To resist this tendency specialists need, first of all, a complete knowledge of medicine and surgery as a science, and from this specialism must come as a natural outgrowth. No man can become an ophthalmologist or an aurist by a study of the eye or ear alone. All of our really great specialists were at first general practitioners, who, having attained distinction as such, became afterwards by gradual and almost insensible departure, specialists. Even then the habitual limitation of the vision is liable, eventually, to narrow the breadth of their horizon. In short, gentlemen, specialists need help from the general practitioner quite as often as the general practitioner needs help from them, and in my opinion, much oftener. In addition to the ophthalmoscope, otoscope, laryngoscope, stethoscope, microscope, and many other useful instruments of this class, for which we must acknowledge our indebtedness to them, they need a telescope, and a wider-scope —aids to vision most often found in the hands of the general practitioner.

We have seen several deplorable instances of failure on the part of specialists who have *ab origine* confined themselves to their chosen organ. Specialism should be regarded as a higher department of medicine whose ranks should be recruited only from the rank and file of the general practitioner, and we have come to regard with suspicion the young man who enters upon the study of medicine with the single aim of embarking as a specialist.

There is, moreover, another view of the matter. The success which a few specialists have achieved has vested the practice with many attractions, and as a consequence the supply bids fair soon to exceed the demand. The fact is apparent that the field left fo[illegible] specialist after the general practitioner has been over it, is [illegible] limited one. There is a feeling in the intell[illegible] (it may be a conceit) that he is com[illegible] the specialist looks [illegible] known an occasional old fashioned family physician to do some very creditable work without making much noise about it. The specialist is a very convenient individual to have around in an emergency, but for his own interest there are now-a-days too many of his kind in most cities; and until the different organs have been properly assigned, each to the care of its special guardian, we would advise the young man who fancies he sees a fortune in any particular part of the body to take down his chart, take new bearings, and reconsider his calculations. As yet the *role* of the general practitioner promises the greatest certainty of success.

J. J. M.

———, B. A., M. D.,

OCULIST AND AURIST to the ——— General Hospital and Children's Hospital, Lecturer on

DISEASES OF THE EYE AND EAR,

in the School of Medicine, at the

—— HOTEL, ——

On Saturday, Oct. ——th.

☞ Residence and office, —— st., ———

The above is a fac simile, with proper names omitted, of an advertisement clipped from a Canadian paper. The only feeling, apart from that of indignation at what would in this country be regarded as a flagrant violation of professional ethics and propriety, aroused by such a display, is one of surprise that such a thing is tolerated in a country where both legislation and professional *esprit de corps* have done so much towards elevating and advancing medical science. The parading of degrees (which, like virtue, should be their own reward), and the species of clap-trap manifest in the above advertisement are fortunately confined in this country to the mountebank and charlatan, and any such attempt on the part of a reputable physician would speedily place him under the ban of professional ostracism. If the proposed union of the Canadian and American Medical Associations should be fol-

lowed by a professional sentiment among our neighbors which would render such exhibitions as the above impossible, we should hail the day when that union shall be consummated. No medical school on the continent stands deservedly higher than that which the advertiser parades himself as lecturing in, and we have heard the gentleman himself very highly spoken of, both as a lecturer and as a practitioner, and these facts but go to increase our surprise at his anomalous conduct. It is a question whether the gentleman himself or the professional sentiment which renders such a display as the above possible, is most to be censured.
J. J. M.

St. Mary's Eye and Ear Infirmary, to which Dr. Eugene Smith is surgeon, is an institution which, under its present directorate, has won an important place among our city charities. The Infirmary is the successor to a weekly eye and ear clinique which had been held at the same place for some years; it differs from its predecessor, however, in being open daily and in having a change of surgeons. It is doubtful whether any city of an equal size in the country can show a daily clinique affording such a quantity and variety of material as is presented at this infirmary. Scarcely a day passes in which one or more of the capital operations are not performed, and on a visit made a short time ago we witnessed one operation for cataract, two for glaucoma, one for trichiasis and three for entropion. Dr. Smith extends a cordial invitation to all physicians, resident in the city as well as visiting, who are interested in his specialty. There are certainly few places in which [illegible] hour can be spent to better advantage. Hours from [illegible] J. J. M.

Me[illegible]

AN ERROR [illegible]—[illegible] advertisement in October JOURNAL [illegible] cent. on medical, and [illegible] per [illegible] should be 10 per cent. on [illegible] laneous. [illegible]

Dr. Bunson, of Heidelberg, the eminent chemist, has been teaching fifty years.

The "American Journal of Medical Sciences" has reached the age of fifty years.

It is stated that five hundred thousand people have died from the famine in India.

Dr. Matthews Duncan has accepted the appointment to the lectureship on midwifery and diseases of women at St. Bartholomew's Hospital.

The town of Fernandina, in Florida, is the only place at which yellow fever has been reported in North America this year. Of eleven hundred cases only fifty have proved fatal.

Prof. C. A. Wunderlich, of the University of Leipzig, and best known in America by his "Manual on Medical Thermometry," died Sept. 25, from cancer of the retro-peritoneal glands.

Prof. Helmholtz has been elected to the office of Rector Magnificus in the University of Berlin for the present academic year. Prof. Du Bois Reymond has been chosen Dean of the Medical Faculty.

The Archives of Clinical Surgery and the Hospital Gazette have been consolidated under their combined names. The editorial management of the new journal will be vested in Drs. E. J. Bermingham and F. A. Lyons.

As a remedy in migraine the juice of a lemon is squeezed into a cup of black coffee, which is then taken at once to alleviate the pain in its course, or to arrest it at its commencement. Possibly the citric acid in this case acts by disengaging the caffeine, or by forming a salt with it.

The Berlin Board of Health reports that 852 children died in that city the last week in June, and that the entire mortality from all causes was 1055, which would give an annual mortality of 54.7 per thousand. The great University does not seem to reduce the mortality of the city in which it is located below that which prevails in cities less favored with the devotees of science.

The *British Medical Journal* says that " the custom was very general in the great houses of England during the first part of the century, and which consisted in setting aside, in order to break the monotony of amusement, a day for general purgation. Hosts, guests and servants, all took part. Saturday evening was usually fixed for the purpose. The physician of the chateau came and left with each one in his chamber a contingent of pills, and on the Sunday the whole household was satisfied."

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

HOSPITALS, THEIR HISTORY, ORGANIZATION AND CONSTRUCTION. Boylston Prize Essay of Harvard University for 1876. By W. Gill Wylie, M.D. Cloth; pages, 240. 1877. New York: D. Appleton & Co.

From his observation as a surgeon to the Resident House Staff of Bellevue Hospital the author had abundant materials for learning the bad effects of poor nursing and defective construction on the welfare of patients. Further, as a member of the standing committee on hospitals of the New York State Charities Aid Association, he spent a summer abroad in studying the subjects of trained nursing and hospital construction. Evidently he has carefully studied extensively the literature of the subject. No one familiar with Bellevue Hospital in or previous to 1872 will wonder at his statements respecting the sanitary condition of that hospital.

He says: " [illegible] while [illegible] the wards patients die from septic di[illegible] ghest surgical op[illegible]

From [illegible] proved [illegible] lowing [illegible] 1872 sh[illegible] and that [illegible] died of puerperal fever. With such facts before him the author was stimulated to collect other facts and make other studies, on which this volume is based.

The opening chapter on the origin and development of hospitals is one of rare interest. For clearness of historical statement we have rarely seen it surpassed. The experience of our late war, he claims, has developed and established the following principles in the construction of hospitals:

1. Hospitals should be placed on a large area of ground so that the pavilions can be widely separated from the administrative buildings and from one another.

2. That the wards should be *only one story* in height and be ventilated by openings along the side of the roof.

3. That the ward pavilions should be put up, not to remain for generations to come, but only so long as they are free from infection, and that when once they are infected they should be destroyed, and replaced with entirely new structures.

In spite of this, of the many hospitals erected since the late war but few have been planned according to these principles. Among these are one pavilion at the Rosevelt Hospital, New York city, two or three pavilions on the grounds of the Massachusetts General Hospital, and one at the Boston City Hospital.

We were interested to notice that the credit of the origin of the first hospitals is due, not to medicine, but to religion. Charity and brotherly love took shape in hospital organizations long before sanitary science existed. Curiously hospitals have been the outcome of only two or three civilizations, namely, the Buddhist, the fire worshippers and the Christian. Other civilizations had nothing in them that made life sacred or taught brotherly love. But the Buddhist, being taught to believe that every living creature is sacred, does all he can to prolong life, and so builds hospitals. The Christian extends his love to all mankind, and builds hospitals to prolong human life and relieve suffering.

The arguments for and against civil hospitals are well and forcibly stated. Further suggestions are given to obviate the evils of such hospitals.

1. Do all that can be done to enlighten the poor to help themselves and to avoid the causes of disease.

2. Give indirect help by improving the condition of the homes of the poor by strict laws in regard to the existing condition and the building of all dwelling houses, manufactories, schools, etc., etc., and in regard to the sale of food, etc.

3. Limit hospital accommodations to those who have no homes and to those who cannot be assisted at their homes.

Of the importance of woman's influence in hospital organization and management the writer is emphatic. "The nearer a hospital resembles what we understand as expressed by the word *home*, the better it is; and to approach this woman's influence must be felt from the board of managers down to the coal heaver."

As to the practical method for utilizing this influence we must refer the reader to the work itself. The three legitimate interests in every hospital are:

a. The humanitarian.

b. The scientific; and

c. The economic.

The relations of the Board of Managers, Medical Board, and Superintendent to each of these interests are stated with great discrimination and fairness. We cannot follow the author as he indicates how hospitals should be built, located, warmed, lighted, ventilated, sewered. It all constitutes one of the most readable of books, and should be in the hands of every one at all connected with an existing or projected hospital. [illegible] closes with a review of the John Hopkins [illegible] its mechanical execution we need only to [illegible] have issued it in their best style.

PRACTICAL HINTS ON THE SELECTION [illegible] COPE. Intended for beginners. [illegible] Edition. Cloth; pages. —— New [illegible] Publication Company.

Of its kind this is the best book that has [illegible] tion. Its author is a practical microscopist [illegible] rare art which is able to both interest and instruct his readers. He begins with a brief statement of what the microscope is and what it does. Then follows a list of the different kinds of microscopes, their essential parts, and the name of each part.

Simple microscopes are next discussed, from the hand magnifier up. Then he treats of the typical forms of the compound microscopes. Objectives and the methods of testing them follow, and in regular order descriptions of accessory apparatus, sources of light, illumination of opaque objects and transparent objects. Then we are told how to use the microscope, to collect objects, to prepare them for examination, to preserve them and to mount them. He does not neglect to tell us how to prepare and use the various cements and varnishes and to finish the slides.

On the whole this is a cheap, simple, and yet accurate help to the student of practical microscopy. We are sure that if placed in the hands of the people and the profession it will greatly reduce the number of useless microscopes to be found in offices and houses. L. C.

HOW TO USE THE OPHTHALMOSCOPE ELEMENTARY INSTITUTIONS IN OPHTHALMOSCOPY. Arranged for the use of students, with thirty-five illustrations, by Edgar A. Browne, Surgeon to the Liverpool Eye and Ear Infirmary. Cloth; pages, 120. 1877. Philadelphia: Henry C. Lea.

This capital little work should be in the hands of every medical student, and we had almost said every general practitioner. Its explanation of the optical principles on which the ophthalmoscope is founded, is so clear and simple that the most stupid reader could scarcely fail of understanding them. Equally satisfactory are the directions for the use of the instrument and the suggestions to aid in interpreting what is seen. We regret that Liebreich's ophthalmoscope is recommended, because while excellent in its day it is surpassed for convenience by those of Loring and Knapp. Our observation has convinced us that the learner makes far more rapid progress when using one of the latter. L. C.

Meteorological Report of Detroit for September, 1877.

BY C. HENRI LEONARD, M. D., OBSERVER FOR STATE BOARD OF HEALTH.

A WARM, DRY, FOGGY, HAZY MONTH.

BAROMETER.—Highest, 30.206; lowest, 29.733; range, 0.503; daily average, 29.986. Higher than last month.

THERMOMETER.—Highest, 83° (this on the last day of the month); lowest, 43° (this on the 18th); range, 40°; daily average, 64.6. It has been unusually *warm* this month; the daily average for '73 was 60.9; for '74, 66.7; for '75, 60.3; for '76, 50.1. The highest September temperature recorded was in '74; then the mercury reached 97° in the shade—as hot as we have had it anytime this year.

WINDS.—Prevailing direction, S. W. Total number of miles traveled, 3,969, a slight gain over last month. Greatest daily amount was 200 miles (this was on the 7th); the least daily amount, 50 miles (this was on the 14th); greatest hourly, 14 metres; this was on the 4th, at 2 P. M.; least hourly, calm; this on evening of the 13th.

CLOUDS.—Clear days, 12; cloudy, 4; rainfall on 8 days.

RAINFALL.—The *lowest* yet recorded for September. The total for the month was 0.39 of an inch; not one-fifteenth of what it was last month. In '73 we had 3.28 inches; in '74, 0.67 inches; in '75, 2.10 inches; in '76, 2.81 inches.

MOISTURE.—Largest amount present on the 15th; then 7 grains were present at the [illegible] and 7.35 grains at the evening. These [illegible] when 7 grains were reached during the month. [illegible] humidity" was 94 per cent. This was rea[illegible] and 28th. Heaviest "pressure [illegible] correspond-ed with time of greatest absolu[illegible]

OZONE.—The first part of the [illegible] ed by ozone; [illegible] according to the [illegible] Sometimes 1½ was reached. After [illegible] was comparatively absent, rarely [illegible] found.

HAZE—was present [illegible]

FOGS—present on [illegible] of the month.

Detroit Medical Journal.

NEW SERIES. Vol. I. } DECEMBER, 1877. No. 12.

Original Communications.

Spina Bifida—A Case Cured by Puncturing and Injecting Tinct. of Iodine, Diluted.

READ BEFORE THE N. E. INDIANA MEDICAL ASSOCIATION, AT LA GRANGE, SEPT. 25TH, 1877, BY NORMAN TEAL, M.D., OF KENDALLVILLE.

Something over four years ago I treated a case of *hydro rachitis*, in which the results have proven so satisfactory that I beg leave to present an account of the same before you at this time.

The patient, a boy, was born Feb. 16th, 1873. I attended at the birth. The child was strong, active, and well developed, excepting the cleft in the spinal column and the tumor thereon. of which this paper proposes to relate.

This tumor was fleshy and firm, though fluctuation could be readily felt—was situated at the juncture of the lumbar and sacral divisions, and of about the size and shape of a medium hen's egg, with the longest diameter running parallel to the

[illegible]

[illegible] symmetric manner.

[illegible] until the end of [illegible]

[illegible] organizers by [illegible] stationed around the [illegible] the [illegible] as a design on [illegible]

[illegible]

compress the walls of the same together and to bring the mass down against the body of the child. The lump inflamed, and it gave the child pain to handle it. After the tenth day the iodine was discontinued as a regular daily application, while the adhesive straps and the cord around the pedicle were kept up. The cord around the footstalk of the tumor was at no time so tight as to cut ofl its vascular circulation. The treatment did not aim to destroy but to solidify the lump.

On the 18th day of June, when the child was four months and two days old, and twenty days after the tapping of the tumor, the case was dismissed, with instructions to continue the adhesive straps. At this time there remained, instead of the tumor, a fleshy, slightly movable lump, about half the size of the former as described in the second paragraph of this paper.

I have seen the little boy often within the past few years, and have been much gratified to observe his steady growth. He is bright and vigorous. The tumor does not increase much, if any; it simply remains, a dense, pendulous lump—a sort of land-mark to show where the original stood.

One point, or symptom, was purposely omitted in the body of this report in order that particular attention might be directed thereto, for I am well aware that it may be questioned whether this was really a *spina bifida*. That symptom was an evident irritation of the nerve centres, as shown by the restless movements of the body, the wild look of the eyes, and other similar evidences, whenever the fluid was forced from the sac of the tumor into the spinal canal.

In conclusion permit me to say there was a cleft in the vertebral column; that the fluid sac of the tumor did connect with and was a distended part of the sheath of the spinal cord; that [illegible] sac was *closed* by adhesive inflammation, made possible by [illegible] tapping, and believed to have been excited by the iodine [illegible] externally applied. The pressure effected by the [illegible], and that made by the cord around the pedicle, [illegible] in bringing together the internal surfaces of the [illegible] use of the ligature, or cord, around the [illegible], from the primary to the closing steps in the treatment, ought, perhaps, to be regarded as the principal measure in the management of the case; for if the connection between the tumor sac and the spinal canal could not have been cut off, there could not have been a cure made.

We may deduct from this case that spinæ bifidæ can be cured if their walls are not too fragile, nor their bases too wide to admit of being tied around.

I would neither tap nor inject into a tumor unless the sac had been separated from the spinal canal by the cord, or ligature, around the pedicle, or by some other equally efficient means. In cases where this separation of the sac and the canal can be effected, my judgment is that a cure may almost certainly follow, and that it can be quite readily produced by any measures that will empty the sac of its fluid contents and excite adhesive inflammation within the same.

I may be allowed to offer a few suggestions for the treatment of cases dissimilar to this one just closed.

This was certainly a very favorable case for the application of the means of separating the tumor-sac from the spinal canal, and in that respect was quite easy of management. We ought not to despair of giving relief, and even curing, cases of larger or wider bases, however, for it seems possible that the bases might be transfixed and multiple ligatures applied, so as to effect separation of the canal and the tumor-sac.

✓

Morphine Met by Atropia.

A CASE REPORTED [illegible], A.M., M.D.

I was called in haste, [illegible] to see Mrs. S. R., aged 20, and but recently [illegible] the purpose of self destruction, had swallowed [illegible] morphine. And previous to my arrival it [illegible] that this dose had been preceded by a [illegible] store. And by consulting [illegible] found that these two papers [illegible] about six grains.

The time which had elapsed since they were swallowed could be only roughly estimated. She had been out for a walk, and being piqued because her husband refused to accompany her, had taken the first powder some two or three blocks from home on her return. At a drug store a little further on she had stopped long enough to buy another ten cents' worth, which she took as soon as she reached home. Then, when asked what she was taking medicine for, her feeble mind seemed to recover itself. She confessed what she had done and begged for help, and thus, when I arrived, my office being some six blocks off, the morphine had got half an hour the start of us, and perhaps more.

And the effect was commensurate; she was beginning to be sleepy, and was lying upon the bed. And, in the course of the next twenty or thirty minutes, during which time we succeeded in evacuating her stomach, thoroughly and repeatedly, with mustard and water, it became plain that enough of the narcotic had already gone into the system to make it a difficult matter to save the patient's life.

For sleepiness rapidly deepened into narcotism. The pupils contracted gradually to mere points; and the respiratory function became less and less able to sustain itself without a resort to voluntary breathing. We had been waking her up at short intervals—at first, to find out how soundly she might be sleeping; but after a while it became evident that we must break her sleep often in order to keep her alive. She panted more and more rapidly every time she was aroused, and breathed slower and slower every time she slept, until the respirations counted five to the minute. And at this rate of breathing, the gathering cyanosis, which could hardly be obviated by waking her often, made it apparent that to keep her alive until the drug had exhausted itself would call for our utmost endeavors.

I gave her, therefore, hypodermically, one-fortieth of a grain of atropia. Waited twenty minutes; and not seeing much effect, repeated the injection, giving her one-fortieth of a grain more. And the result was very gratifying. In the course of the next half hour the pupils gradually dilated to about their natural size and the respirations came up to twelve per minute—or, I might better say, sunk no lower than that when left to herself.

Opium kills by paralyzing the function of respiration ; and this tendency the atropia had effectually counteracted. The seven additional breaths per minute which it had given her, made the difference between a heavy opium sleep and a deadly narcotism. It was necessary to give her no further treatment; and when she had had time to sleep off the effects of her suicidal doses, she was well.

On looking over the literature of this antagonism (which, it must be confessed, is none too copious), I gather this impression, which, however, it is to be understood, is only my own impression, and not so much of what is already settled, as of what will be the result of a further experience :

If the atropia fails to save life in these cases, it is from the one or the other of these two causes,—or, very possibly, both may be operating adversely together :—

First. The antidote is not resorted to early enough, and the patient perishes under the additional load of a poisonous circulation. For while the belladonna may be a sufficient antagonism, atropia against morphia, it seems to have no power to purify a circulating [illegible] and perhaps fatally, with another narcotic [illegible]

Second. The [illegible] the stomach, which, (because it is [illegible] some other reason,) fails [illegible] onists within [illegible]

In a case [illegible] W. E. W[illegible] in the *Ohio Medical* [illegible] belladonna was given [illegible] minutes, for about one [illegible] dangerous amount of one [illegible] "before the pupils began to [illegible] was saved, but we are left in [illegible] should be given so the belladonna [illegible] man exertions" of the doctor and [illegible] awake. It was four and one-half hours before she could be kept awake in a sitting posture; it was between six and eight before the poisonous energy of the deadly nightshade had fully declared itself; and the morphine, in the mean time, having partly exhausted itself, it was then found necessary to give more of the morphine to antidote the antidote. And it is noticeable here that it required six hours time, using cautiously the same torpid stomach, to introduce morphine enough to make the dilated pupils contract again. It is probable that the antagonism could have been set up hypodermically, in a few minutes, either in the first instance, when it was in order to counteract the morphine with belladonna, or in the second, when it was found necessary to meet an excess of the antidote with more morphine.

Prof. Reese, in his valuable *Manual of Toxicology,* page 371, says:

"In a case of opium poisoning, the tincture of belladonna, or an equivalent solution of atropia, should be carefully administered in successive doses, until the pupils begin to dilate and the breathing becomes increased in frequency. Should the patient be unable to swallow, the atropia may be administered hypodermically."

But these directions, it seems to me, are not well considered. In all cases where promptness and certainty of action are required, the hypodermic mode of medication is to be preferred immeasurably. And this applies not to cases of poisoning alone, but to any other cases as well.

A case in point, and especially so because both these forms of medication were tried successively upon the same patient, is reported by Dr. Williams, of Baltimore, in the *Medical and Surgical Reporter* for Oct. 26, 1874 which, as it is brief, I will quote entire:—

"Mrs. A., a young woman of fine physique, and who had had no untoward symptoms during her pregnancy, was confined with her first child in October, 1873. She had a long and tedious labor, during which *I gave her five or six one drachm doses of the fluid extract of ergot with very little effect.* After the head [illegible] remained some time in the pelvis without apparent progress, I determined to apply the forceps, and the child was extracted without difficulty. Everything went well with the case for a time, when without appreciable cause the uterus became relaxed completely, producing a profuse hemorrhage. After using the customary remedies without effect, I injected half a drachm of the fluid extract of ergot into the inside of the left thigh. Immediately I again thrust my hand into the uterus, and my anxiety was relieved by finding that the uterus was beginning to contract vigorously, and it promptly expelled my hand."

The sole difficulty in this case would seem to have been a uterine inertia, and the requisite remedy, therefore, a *true* oxytocic. Whether it should have been quinine, or cimicifuga, or ustilago maidis, for several drugs are now finding advocates in the profession, we need a "commission" to decide. But the capabilities of ergot are pretty well understood already. It does not assist nature, and is not, therefore, a true oxytocic. On the other hand, it sets aside the labor pains and substitutes a *tonic* contraction peculiarly its own, which *grasps and holds the uterine contents, and is not expulsive, except incidentally, and at the very close of the labor, just as a boy's fingers are expulsive when he snaps an apple seed by pinching the last half of it.*

Fortunately, in this case, the ergot administered by the mouth did not get into the organism; the proof of this was the complete relaxation and consequent [illegible] rhage which followed the mechanical delivery, and [illegible] which this was met by half a drachm [illegible] same bottle, given hypodermically, [illegible] promptness and reliability of this [illegible]

And it should [illegible] be another [illegible] save the patient, we may [illegible] itself, though slow in [illegible] Wells' case, develop a [illegible] gerous to the patient as the [illegible] syringe has greatly amplified [illegible] ger of over dosing seemingly [illegible]

YPSILANTI, Oct. [illegible]

Treatment of Varicose Veins by the Hypodermic Injection of Sol. of Per-sulphate of Iron with a Report of Three Cases.

BY FRED. B. WOOD, M.D., OF BIG RAPIDS, MICH.

In calling the attention of your readers to this important and interesting subject, I wish first to state that it is a disease which should ever claim our consideration on account of its frequent occurrence, its inconvenience, and the dangers not infrequently arising from it.

I have consulted all of the most popular surgical works, and fail to find the amount of space or time devoted to this subject which I think the severity of the disease at times demands. All of these authors seem to follow in the same channel so far as treatment is concerned, rather disapproving any energetic surgical interference for its relief· Yet, when we find patients who have been suffering for a number of years, not only the inconvenience, but oftentimes the severe pain and extreme danger to which they are quite frequently subjected, is it to be wandered at that they will plead for an amputation or any other interference which promises relief?

The disease under discussion may be found located in almost any part of the body, very frequently in some, quite rare in others. We find it not only in the superficial, but also in the deep seated veins. The coats of the vessels becoming diseased, the valves weakened or broken down, as they have been found in many cases, furnishes us a sufficient reason for its more frequent occurrence in the lower extremities, and in individuals accustomed to performing their labors while standing or walking. The heavy current of blood which should be carried back from the extremities to the heart by these vessels becomes sluggish, the action of the heart in connection with the contractile power of the arteries is not sufficient to bear its burden onward, thence the veins become dilated from pressure, and the condition above spoken of is the result.

Not wishing to discuss this subject in a general manner, I shall confine my remarks in this paper to varicose veins in the lower extremities, and report three of the eleven cases which I have treated by hypodermic injection, in each of which I have been successful in effecting a good recovery. In some of these cases, you will see by their history, dangerous hæmorrhage had occurred, and in the first case upon which I operated in 1868, that was the alarming symptom which prompted me to undertake the treatment of the case.

Case 1. F—— M——, a German, aged 36 years, of large frame, weighing about 220 pounds, called at my office Feb. 13, 1868, to consult me in regard to an amputation of his left leg on account of a varicosed condition of the superficial veins of that leg. On examination of the limb I found the superficial veins below the knee very much dilated and tortuous, the tension and weight of which caused great pain and suffering. The external saphena was dilated to almost an inch in diameter, while the superficial veins of the thigh also presented a dilated, tortuous, and sacculated appearance.

At about the union of the middle and lower thirds of the tibia and fibula I found a large, foul ulcer, with numerous smaller ones around the joint below. These ulcers had been open for four or five years; the œdema of the limb was well marked, and the course of the veins was much inflamed. During this time many remedies had been used, but the ulcers had persistently refused to heal.

My patient informed me that about twenty days before he came to me, the large ulcer had commenced bleeding, and the hæmorrhage had been so severe that it was with great difficulty it was stopped by the application of cold and compresses. The veins of the opposite limb were very much diseased, with some small ulcers around the ankle joint, but as yet had not troubled him as severely as those in the other limb, although the leg was in a very bad condition.

I did not deem it necessary to amputate, and therefore advised him to wait and give me time to investigate the matter and determine, if possible, the best mode of procedure in his particular case. In referring to Gross', Erichson's and Druitt's works on surgery I found but little difference of opinion expressed by those high authorities in regard to the treatment of such cases; each recommending the removal of a part of the vein, pin ligature, cautery, &c., for permanent relief. Knowing that the object of any operation was the obliteration of the vein, and that any procedure was attended with more or less danger on account of the formation of clots, I at once resolved to try the hypodermic injection of sol. of persulphate of iron.

Accordingly, on the 14th, after applying a tourniquet above the point where I wished to operate, and having my esteemed friend, Dr. Woolley, make firm pressure below, I proceeded to inject about 30 drops of the remedy above named into the external saphena about its middle. With the pressure continued, in about five minutes I found to my great satisfaction that a firm, hard clot had formed, which was immovable and unyielding. I now made the same preparation and proceeded to operate upon the right leg. This, however, was not so satisfactory. My syringe had become so corroded with the medicine that it was with great difficulty that I forced a very few drops into the vein. The introduction of the remedy into the vein caused quite extensive inflammation along the course of all the veins, but not sufficient to cause alarm or demand any treatment whatever. The ulcers I dressed with carbolic acid, one part to fifteen parts of glycerine and water.

With this treatment upon my part I left the case in the hands of nature for a cure. On the 5th day of March following, every ulcer on the left leg was entirely healed, the veins reduced, and, as my patient expressed it, the leg was as good as ever. The right leg, on account of the failure of the first operation, had improved but little, if any; therefore, on the 6th day of March I repeated the operation as before, and in the course of about seventeen days this leg was permanently cured.

Case 2. G——M——, American, aged 22 years, also large and powerfully built, a farmer by occupation, called on me June 10th, 1875, to be treated for some "sores," (as he called them) on his right leg, which had been troubling him more or less for five years. On examination I found a case almost precisely like the first, excepting that the diseased condition did not extend above the knee, and there had been no hæmorrhage. In this case, although the patient was a man of extraordinary nerve and will, yet at times he had been confined to his bed with pain and suffering. This being the sixth case which I had treated by this method, I explained to him the operation, and also the danger attending it, but he expressed himself willing to submit to any operation which would promise any chance for relief, as he was tired of living if he must continue to suffer as he had done for years past.

With this understanding I prepared to operate at once, and proceeded as in the case above reported, assisted by Dr. M. A. Hendryx, of this city (then a partner of mine in practice). I injected about one half of a drachm of the solution at two different points, and watched the formation of the clots, which took place in a very short time. Immediately after the operation he rode to his home, about four miles from the city. I heard nothing more from the case until the third day, when I was summoned in great haste to visit him. I confess I was somewhat alarmed by the hasty summons, knowing, as I did, the danger of the formation of a clot, which, if it passed through the vessels and reached the heart, might cause serious trouble if not instant death. I was much relieved on arriving at the bedside of my patient and finding that he had had a severe chill, which alarmed him and his friends. About four hours after he left my office on the day of the operation, he was attacked with severe pain in the limb, which began swelling quite rapidly, and on this, the third day, he had a severe chill, followed by a high grade of fever.

The limb was very much swollen and quite tender. At the points where the remedy had been introduced, and for some distance around them, the soft parts were quite hard and considerably discolored. Seeing that the inflammatory action was so high that it would be extremely doubtful about allaying it without some suppuration, I at once ordered poultice of ligni pulv. to be applied over the entire limb, and gave him large doses of sul. quinia with tincture chloride of iron, also opium to relieve pain.

This treatment was continued without intermission for four days, when the slough had formed at both points of injection, and was discharging freely. The swelling and inflammation in the limb had entirely subsided, and the pain had become quite bearable. I now removed the poultices and dressed the limb with tepid water dressing. Continued the internal treatment as before, with the exception of the opium, which was not demanded. On the eighteenth day I removed the clots formed by the introduction of the iron, and the ulcers began to heal kindly, and on the thirty second day all that was left of any of the sores were the scars. The veins were reduced, the limb had assumed its normal size and shape, and the case proved an entire success, the patient never having suffered the least trouble with it since. .

Case 3. This case was a patient of my esteemed friend, Dr. S. P. Phelps, of this city, who had been treating him for several weeks, endeavoring to heal three or four varicose ulcers situated upon his right leg.

The treatment used, although scientific, and as good as could possibly be used, had failed to do any good, as it had with quite a number of physicians who had treated him in a similar manner before.

After becoming tired and discouraged with the results obtained by using palliative remedies, Dr. Phelps called upon me to assist him in giving the injection. and effecting a radical cure if possible. The limb was in about the same condition as the other two already reported, and had been troubling the patient for a number of years. It had become so bad that the patient had, on several occasions, proposed to Dr. Phelps amputation of the limb.

The operation was performed as described in the former two cases, and on the second or third day afterward the patient was on the street.

From one or all of the following causes : being upon his feet too early, impurities in the remedy used, or a diseased condition of the system, a high grade of inflammation was aroused in the limb, sloughing took place, and the clots were removed as in case No. 2. This case was carefully attended to and treated by Dr. Phelps, yet the sores upon the limb healed very slowly, and the recovery was not at all satisfactory. I expressed my opinion to Dr. Phelps that the failure was not the fault of the operation, but resulted from one or all the causes above named, and in a short time had the pleasure of proving the correctness of my opinion. The patient, in about four months after the operation, fell into my hands for treatment of precisely the same condition of the opposite leg.

Believing his system to be in a syphilitic condition, I put him upon the following preparatory treatment, and continued it at least three months before I would consent to operate: Potass, iod., ammonia mur, aqua font., syrup sarsap. co., aa.℥ij. Mix. Of this mixture I gave him one teaspoonful four times each day. I continued this treatment, as above stated, for about three months, and on Jan. 10th, 1877, I injected the varicosed veins in two of the most prominent points I could find.

There was no excessive inflammation following this operation, neither was there any febrile action or sloughing. The necessary inflammation which had taken place, subsided, the ulcers (four in number) healed kindly with the application of carbolized water, and in fifteen days the recovery was perfect and the limb cured.

I will not weary your readers with a longer recital of cases, but will state that up to the present time, I have performed this operation eleven [illegible] case only (No. 2 in my own practice) ha [illegible] ill effects from this treatment, and in th [illegible] mation, in my opinion, was caused [illegible] article of medicine; yet the in [illegible] d, and the ultimate [illegible]

I [illegible] treatment [illegible] operate [illegible] every ca [illegible]

I have three suggestions to make in reference to the performance of this operation, and I believe if these are followed in all cases by physicians treating such cases as I have reported, that the hypodermic injection will soon take its place as the best known surgical interference for the cure of varicose veins and varicose ulcers. First, put the system in a healthy condition; second, make firm pressure both above and below the point of entrance of the needle, thereby confining the remedy until the clot is formed, and third, be sure your remedy is pure, and not inject to exceed 30 drops at any one point.

A Pin after a Sojourn of 42 Years in the Body of a Lady is at last Voided through the Bladder.

BY A. H. STEPHENSON, M.D., ADRIAN, MICH.

Mrs. C——, æt. 75 years, large, fleshy, and apparently in good health, called on me for treatment on Dec. 23d, 1876. Had been under a physician's care for three weeks previous, but had received no benefit. At the time I saw her she complained of pain in the region of the kidneys, and her urine was tinged with blood, frequently having nothing pass but pure blood, at other times the urine being but slightly tinged.

Chemical and microscopical examination of the urine revealed blood, it being otherwise normal. She received no special benefit from treatment. On the 21st of March, 1877, she called at the office and said she had found out the cause of her trouble. A few days before while dressing a chicken she had found a *pin* stuck through the liver. It immediately recalled to mind that she herself had swallowed a pin some 42 years ago. In the spring of 1835, while washing, she took from her husband's shirt a pin, which he used in lieu of a tooth-pick, and put it in her mouth; being called out doors to assist her husband, and while lifting, she accidentally swallowed it. The pin stuck fast in her throat so that she was able to reach it with her finger; there it remained two (2) years, during which time it bothered her occasionally. It then disappeared, and she says she did not know whether she swallowed it or threw it out. In 1845 she had an attack of gastralgia, which lasted only a few moments, but during the paroxysm she "was almost blind from pain alone;" was perfectly well before she was taken, and could not account for it.

She has had no gastralgia since, nothing but occasional distressed spells in the stomach and bowels, until the fall of 1876, when she commenced to pass bloody urine. A week after relating the above to me, while at stool, she passed a pin from her bladder, it causing the most excruciating pain and considerable laceration of the *meatus*. For a few days blood and pus were discharged, after which she was entirely well, and has remained so to the present writing.

Ophthalmology and Otology.

CASES REPORTED BY EUGENE SMITH, M.D., DETROIT.

Ophthalmic and Aural Surgeon to St. Mary's Hospital, Surgeon in Charge of St. Mary's Hospital Free Eye and Ear Infirmary.

In the *Annales d'Oculistique* for November and December, 1876, appears a review of a thesis on drainage of the eye in the different affections of this organ. The thesis gives the views of L. de Wecker, the great French oculist, whose masterly mind originated the idea. To de Wecker, says the author of the thesis, belongs the merit of having demonstrated that iridectomy acts especially by the establishment of a cicatrix of filtration, permitting the escape [illegible] humor. It is well known that frequently irid[illegible] to attain the desired aim, and it is th[illegible] active filtration. In certain [illegible] drainage and prevent [illegible] of the retina. De W[illegible] treatment in th[illegible] the eye [illegible] surgery. One of the advantages spoken of is the ability to place the seton at precisely the place indicated by the condition requiring it.

The proceeding consists in the introduction of a thread of virgin gold through the membranes of the eye, or the cornea, or at the junction of the latter with the other membranes of the eye, or through only the sclerotic and choroid. The thread of gold is introduced through a canula needle of variable curve and the ends are twisted close to the conjunctiva. The tolerance of these loops of gold thread is remarkable, and generally they may be left indefinitely ; only occasionally do they cause pain and injection of the eye.

In the March and April number, 1877, of the same journal, Dr. Masselon, *chef de clinique du Dr. de Wecker*, writes on the same subject, stating that the operation was performed 58 times during the year 1876. He says that having acquired the conviction that the evacuation of the sub-retinal fluid restored, temporarily, at least, the function of the retina, we had, therefore, but to seek for a means which would prevent the reproduction of the liquid, or which would cause a continual elimination in a manner to prevent a new detachment of the retina. With this aim in view, our master (Dr. de Wecker) placed under the detached retina a seton of metallic thread, in other words, a *drain.* The comparison established between this loop of filtration and the cicatrix of filtration, obtained by iridectomy in glaucoma, caused it to be applied also in cases of hydrophthalmos and glaucoma.

The following conclusions have been arrived at by Dr. de Wecker through attentive study of the cases submitted to the operation. The first fact is the *possibility* of drainage of the eye. It is interesting to know that the eye will support with impunity a foreign body introduced outside of, beyond the sensitive zone (ciliary body) through its membranes. The tolerance of this organ with respect to the drain permits of imagining methods of treatment that we have never tried from fear of supervening inflammation and suppuration.

From the point of view of ocular physiology, the drainage gives a very good reason for the action of iridectomy. They act in the same way, by producing the filtration of the intra-ocular fluids.

So far as we have been able to glean from the published reports, the practice of Dr. de Wecker in *his* clinique, fulfils his theory, and we think his theory is about right, still we have hesitated to apply the drainage in our own practice, being quite skeptical about the foreign body remaining "with impunity," and the following case from the October, 1877, number of the "*Klinische Monatsblætter fur Augenheilkunde*," reported by Dr. Just, in Zittau, rather confirms our fears:

DRAINAGE OF THE EYES WITH UNFORTUNATE RESULT.—From the reports of de Wecker and Cohn it appears as if the drainage of the eyes with a gold seton is a perfectly harmless operation.

The following case teaches, however, that the reaction thereafter may be very destructive:

A woman 30 years of age was operated on by drainage on account of a total detachment of the retina in a myopic eye. The gold thread being too heavy to slip through the curved needle, the needle was withdrawn, the operation not being finished. Two days after the attempted operation, the eye being free from irritation, the attempt was again made, and this time completed as desired. The ends of the gold thread were nicely twisted together, and the patient suffered no inconvenience during the first few hours, but that evening there was pain, swelling of the conjunctiva an[illegible]ner lids; the next morning, after a sleepless night, the [illegible]nt inflammation, a suppurative choroid[illegible] gold thread was reached and remove[illegible]tiva, after which the pain subs[illegible] for three days was of a thre[illegible] her earnest request [illegible]lling and the omi[illegible] the form of r[illegible] patient.

It is [illegible]

this operation, should be also reported. In the first place, are we not pretty sure to set up a panophthalmitis by leaving a thread in the eye? May the unhappy result have been caused by the repetition of the operation the second day after the first attempt? Cohn had the same misfortune without any abnormal reaction.

The tolerance by some eyes of a foreign body is well known to the profession, as cases are recorded wherein a foreign body has been carried for many years in the eyeball without setting up sympathetic irritation. Sooner or later, however, trouble *does* arise, and if it does, the injured eye cannot be too soon enucleated. Although the following case is not exactly apropos to the subject of drainage, it is not mal a propos to the subject of foreign bodies in the eye:

Nov. 28th I enucleated the left eye of Mr. Geo. Gilbert, of Springwells, which was injured by a piece of iron four years ago last May. While cutting off the head of an iron bolt with a cold chisel, a piece of the bolt struck and punctured the eyeball at about the insertion of the superior rectus muscle. Two or three physicians saw him within a short time of the injury, but were of the opinion that the piece of iron was not in the eye, notwithstanding the assertions of the patient that it must be, and he (the patient) thought he could see "the black end of it sticking in the wound." The "black end" was pronounced by the physicians to be a blood clot, and was not disturbed. Four weeks after the injury the patient could see well enough with the injured eye to distinguish between the appearance of a man and a woman at a distance of five hundred feet. Soon after this time vision with this eye slowly went out. Although blind it has never been painful or troubled him till about a week before I removed it, when he was accidentally struck in the blind eye by a small piece of wood. The injury was not severe, but was sufficient to light up the spark which was lying dormant, and violent inflammation set in. When he consulted me,—Nov. 27th, the day previous to the operation—the well eye was quite irritable; there was intolerance of light, lachrymation and slight pain. Appreciating the danger he was in, he consented to enucleation, which was made the following morning. The eyeball was opened immediately after the operation, while fresh, at its equator, in presence of two or three medical friends. The specimen was exceedingly interesting, and illustrates the necessity for *careful* examination on the part of physicians when called upon to treat such or similar cases. Sticking from the wound into the vitreous chamber, one end *enclosed in the wound*, was a piece of iron *over one-half an inch in length* and fully one-sixteenth of an inch in width. At about the position of the ciliary body and lens is a circular connective tissue like deposit, quite thick and dense, and which appears to be in the first stage of ossification. At the posterior pole of the eye there is found a nearly circular plate of bone nearly one-half an inch in diameter, and at its thickest portion about one-twentieth of an inch thick, showing, I think, various stages of development. Portions of it appear very like the deposit found at the anterior parts of the eye.

Possibly the eye might have been saved had the piece of iron been removed at the time of injury or shortly after. At the time of the accident the use of a probe would have caused the discovery of the foreign body, and without the necessity of entering the globe with it; later, the ophthalmoscope would have shown its whereabouts, and it might have been removed with comparative prospective safety. Further comment is unnecessary.

OTORRHŒA—SUPPURATIVE OTITIS MEDIA.—The attention of physicians in general practice is not sufficiently directed towards the necessity of early treatment in inflammations of the ear. There is a popular idea prevailing, not only in the minds of the laity, but, unfortunately, also in the minds of too many doctors, that it is dangerous to arrest a discharge from the ear, and too often have physicians advised parents to "let their children's ears alone, and they will outgrow it." Some years ago, while discussing the importance of the subject with a number of physicians, an elderly physician remarked that he usually advised parents that their children would outgrow the affection, and his experience taught him that such was the case. and that treatment was not of much use. It was but a few weeks subsequently that I was called to his house to attend to *three* of his children, each of whom had suppurative inflammation of the middle ear, following measles. They all recovered under judicious treatment. I asked the doctor why he did not "let them outgrow it," and he acknowledged that he was cured of that idea.

Acute suppurative inflammation invariably responds to careful treatment. It arises from taking cold and the exanthematous diseases. If not properly taken care of, it runs into that disagreeable, yes, *nasty* affection known as chronic otorrhœa, so annoying to the patient and disgusting to his associates, and which is *not devoid of danger to life*. Many cases have been reported of death from extension of the disease to the brain. In order to appreciate the dangerous character of an inflammation of the middle ear, an acquaintance with the anatomical relations of that cavity is necessary, a brief resume of which I give from a paper read by Dr. Buck, of New York, before the International Congress, at Philadelphia.

"The middle ear (or tympanum) is a small cavity, about five eighths of an inch in length, half an inch in height, and from an eighth to a quarter of an inch in breadth. The drum head, or membrana tympanum, constitutes the greater part of one of the sides of this cavity—the outer one—but at all other points (with some unimportant exceptions) its walls are of bone, covered by an exceedingly thin, vascular membrane. In health, this cavity possesses an outlet (the Eustachian tube), but when its lining membrane becomes inflamed, this outlet undoubtedly closes, and we then have to deal with an inflammation occurring in a closed cavity, the walls of which are everywhere of bone, except at one spot, and here the resistance of a strong, fibrous membrane must first be overcome before the fluid can escape, and before the conditions of a closed cavity can be done away with." "The bloodvessels of the tympanitic mucous membrane communicate freely with those of the adjacent dura mater, which is separated from the mucous membrane by only a thin septum of bone, and the mastoid veins empty directly into the lateral sinus."

There is no doubt in my mind that many of the deaths from scarlet fever supposed to be due to the effect of the poison upon the brain (or uræmia) producing delirium and marked head symptoms, are in reality due to the extension of the inflammation from the ear to the brain; the ear symptoms being overlooked on account of the supposed more serious symptoms of the exanthemata.

The best means of avoiding the chronic variety of otitis media suppurativa is to carefully and properly take care of the acute disease. The disease commences usually with earache; the pain increases in severity till it is of the most agonizing and sickening character, accompanied with more or less febrile movement. If allowed to proceed unchecked, in from forty-eight hours to three or four days the drum gives way, a discharge of pus takes place, and the patient is relieved of pain. If seen early the attack may be cut short by the application of leeches in front of the ear, and the use of hot water fomentations. If the trouble does not cease, but a distinct bulging of the membrana tympani appears, no time should be lost in giving free vent to the contents of the cavity by making an incision in the drum. Syringing the ear with warm water and hot fomentations usually suffice to complete the cure.

The late Mr. James Hinton, of London, an acknowledged authority on ear diseases, in speaking of this subject, says: "Since the real relief of the symptoms depends upon the escape of the matter through the membrane, it would seem an obvious inference that the membrane should be, at the earliest possible period, incised." If this course is followed, and I contend it should be, even in mild or severe cases of the exanthemata as well as in other cases, we will certainly blot out entirely the chronic variety of the disease—the disgusting otorrhœa. Frolsch says "that if every physician (treating exanthemhtous diseases) were to inform himself of the condition of the ear and the hearing, as well as of the skin and kidneys, pulse and bowels, many a child would not become deaf and dumb, and many incurable cases of deafness, and many lifelong otorrhœas would be avoided." Prof. E. H. Clarke, of Boston, once remarked, "so necessary is a careful attention to the ear, during the course of an exanthema, that every physician who treats such a case without careful attention to the organ of hearing, must be denominated an unscrupulous practitioner." If this remark held good in 1858, when it was made, how much more so does it not obtain at the present epoch in medical science, when we are so well supplied with literature on the subject, and when the medical schools of the present day, recognizing its importance, appoint teachers thereon.

Abstracts from Virchow's Archives.

TRANSLATED FOR THE DETROIT MEDICAL JOURNAL BY H. P. V. PETERSHAUSEN, A.M., M.D., PH. D.

XIII.—*The Causes of Croupous Pneumonia* (*Dr. B. Heidenhain, Berlin. Vol. 70. August*, 1877.)

Of late it has been questioned in several quarters if pneumonia was an infectious disease or not. For instance, one could arrive at a definite result if it was proven that "true croupous pneumonia" could be caused by an injury. This is denied by those who adhere to the the theory of infection. However, as traumata of the mentioned class are of a peculiar interest to the pathologist, the author made a number of experiments with rabbits and dogs, in an endeavor to solve the problem in question.

He irritated the lungs of his animals by the application of excessive temperatures. For this purpose he placed a canula into the trachea of the animals, which was connected with an iron tube three feet long. The latter could be heated, and all the air to be respirated had to pass through it. The experiment lasted from fifteen to twenty minutes and longer. When the animals were killed three, five or seven days afterwards, their lungs appeared completely sound.

Another series of experiments were made with the inspiration of cold air. The latter was produced in a twelve feet long spiral tube of lead, put in a mixture of ice and water. The results obtained were of a negative character.

Then, to imitate the conditions that cause catarrh, the author made the animals inspire successively heated and cooled air for several times. No lung disease was called forth in this manner.

An unexpected fact was found when the author brought a thermometer in the deeper parts of the trachea. There was a constant temperature to be observed, though the temperature of the inhaled air differed from 21° to 158° F. and more. This shows that it is of no influence what the temperature of the inspirated *dry* air may be.

But the results differed very much when instead of dry air an air saturated with watery vapor was inhaled by the animals. Not only did the thermometer in the trachea soon rise to the temperature of the air to be inspired, but as soon as the air had a temperature of 131° to 140° F., the lungs were affected, though humid air of 122° F. was not sufficient to do so. Vapor of acetic acid acted in a similar manner. Other chemical agents had no peculiar effect upon the animals, as they were given either in a too much diluted state, or, if they caused the death of the animals, the lungs remained healthy.

The changes caused by the inhalation of watery vapors consisted in the presence of croupous membranes in the trachea and bronchii, and in catarrhal infiltrations in the lungs. But the author was unable to cause *true croupous pneumonia* by irritating the respiratory organs, provided, that this disease consists, as is agreed upon now, in the total affection of an entire lobe while at the same time pleurisy is present and the trachea and bronchi are either intact or only secondarily attacked. But, in all the [illegible] es, there were *first* attacked the trachea and bron[illegible] only secondarily. Pleurisy, the [illegible] never found. These results support strongly the supposition that pneumonia is caused by the influence of a *specific agent.*

XIV.—*On Tuberculosis Peculiar to Cattle. (N. Kolessnikow, of St. Petersburg. Vol. 70, August, 1877.)*

We find in this disease nodules of the size of a pea and larger upon pleura and peritoneum. They appear solitary or more frequently in a group, and are in the latter case connected by connective tissue. Their central portion is softened and appears in a later period cheesy, or calcified. They form metastases in the lymph glands, the lungs and other organs. Dupuy described it in 1817 as a specific disease identical with tuberculosis. Fourteen years afterwards Gurlt denied this, and considered the nodules as sarcomata. Virchow was the first who examined them more exactly, and described them as *lymphosarcomata.* Their nature as such is founded upon their connective tissue matrix, their giant cells formed from connective tissue cells, their progressive growth and upon the *persistence* of the elements bedded in the reticulum.

Several authors fed animals with the cheesy masses, the flesh and milk from cows destroyed by the disease in question. They found in such animals newly formed nodules resembling miliary tubercles in man. These experiments and the clinical history of the cases induced those experimenters to consider the disease in question and tuberculosis as identical.

The author was induced by Virchow to examine the pathological changes in the lacteal glands of the cow attacked from the disease. The material for his researches had come from six cows killed for being attacked from the disease. In one of these cases there were formed already lymphosarcomata in the glands, while the remaining glands were only affected by catarrhal inflammation and chronic interstitial mastitis.

The numerous lymphosarcomata in the interstitial tissue of the gland in the first mentioned case had caused, by their development, partly a dilatation, partly an obstruction of the alveoli and secretory ducts. The author never observed that the giant cells found in these tumors were developed from destroyed blood corpuscles, as Ziegler asserted, or from the breeding cells of the capillaries, as Brodowsky supposed. Besides the true giant cells he observed formations resembling them, and which in reality were transformed blood vessels, while the cellular elements about tnem was proliferating endothelium, and the granulated or fibrous masses in their center was fibrin. By this result it is proven that there may exist in the lacteal glands new formations that have the same histological elements as the lymphosarcomata found by Virchow in pleura, lungs and lymph glands of cows having the same disease. They must therefore have developed *as metastases*, and *must not be identified with tubercles*, which belong, according to Virchow, to those lymphomata that are of a more *decaying* character.

As to the catarrhal inflammation that was found in the other glands, the following observations were made: The interlobular and interalveolar connective tissues were three times thicker than normal. The secretory ducts were variously dilated. The membrana propria, though infiltrated, could always be recognized. The secretory ducts were only partly found in an earlier stage of proliferation, in which the deeper epithelial cells proliferated and formed strata. The alveoli were likewise in different stages of the catarrhal inflammation. The deeper epithelial layers proliferated extensively, while the membrana propria was in an almost normal condition. The canals of the alveoli were obstructed either by an accumulation of round cells or by epithelial cells which were pushed away from the membrana propria by several layers of round cells. The pus cells in this case must have come from the proliferating lower epithelial cells. For, neither in the membrana propria and its adjacent interstitial tissue nor in the cylindrical and polygonal gland cells there were found such changes that would justify the supposition that these tissues were the sources of the pus.

The author *denies* that the affection of the cows' lacteal glands in case of the pulmonary disease in question is of a *tuberculous* character, though he thinks that it may favor the development of metastases if other organs are attacked, as was the case in one of the glands examined by him.

XV.—*On Disturbances of the Circulation in the Kidneys in Case of Chronic Interstitial Nephritis.* (*Dr. R. Thoma, in Heidelberg. Vol.* 71, *Sept. and October,* 1877.)

The kidneys are not reduced in size at an earlier period of this disease, provided that there is no complication with senile or cachectic atrophy. At the same time no enlargement of the organ can be observed. Only its capsule adheres in a few places more closely to its proper substance. The microscope shows that there took place at these spots a proliferation of the connective tissue. In the cortical substance there will be found more of such spots. They inclose often the interlobular arteriæ and venæ. In general the new connective tissue has either the structure of granulation or of cicatrization tissue and follows closely the vessels.

Numerous glandular canals and glomeruli become enclosed by the proliferations. A number of the urinary canals get partly closed, and then the epithelium atrophies by pressure. In other districts of the canals there accumulate secreta and small cysts are formed. As a sequence of the proliferation of the connective tissue there is found atrophy of the glomeruli, or more rarely they get turned to cysts.

In consequence of the changes described there will be found numerous arterial branches that terminate directly into the capillaries. Within the reach of the proliferations there goes on a hyaline degeneration of the walls of the vessels.

Then the kidneys begin to decrease gradually in size and weight, and their surface becomes granulated. Besides, the organ becomes more intimately connected with its capsule. Moreover, the cortical part gets contracted and the pyramids of the marrow become shorter. Then follows a prolongation of the calyces and a dilatation of the pelvis. The color of the organ is of whitish gray or of a pale red with a darker shading.

The disease progresses then from the periphery. Large portions of the cortical part form thick scars. A greater number of uriniferous canals and glomeruli get destroyed and more cysts will be formed. In non-complicated cases there is found no disease of the epithelium within the reach of the proliferation.

The changes in the marrow appear later and do not become so high graded, in other respects they are similar to those in the cortical substance.

There is rarely one kidney much more reduced in size than the other. The disease is found oftener with people over 36 years.

By all the changes going on in the organ there is caused a considerable resistance in the capillary district, which is followed by a delay of the rapidity of the blood current and by an increase of the arterial pressure. The latter and the alteration of the walls of the vessels, cause albuminuria. The transudation takes place into the capsules of the glomeruli, and into the connective tissue around the capillaries. In case there is less pathological transudation, the walls of the vessels show such changes in structure which may be termed chronic endarteritis, or chronic mesarteritis.

The author could not decide which of the different alterations must be considered as the primary one, i. e., as the one which caused the others. As a certainty could only be established, that the chronic endarteritis, the pathologically increased permeability of the walls of the vessels, and the proliferation of the connective tissue are mutually dependent upon each other.

Reports of Societies.

Detroit Academy of Medicine, October 9th, 1877.

The president, Dr. Geo. P. Andrews, in the chair.

EXHIBITION OF PATIENTS.

Dr. Noyes exhibited a patient who had a week before received a dangerous cut in the eye from a fragment of glass. The cut extended from summit of cornea diagonally across sclero-corneal junction, wounding ciliary body and iris. A portion of iris when first seen protruded through and was pinched in the wound. This was snipped off; atropine dropped into the eye, and a compress bandage applied. The inflammation which followed was entirely arrested by leeching and active antiphlogistic treatment, and no sympathetic trouble in fellow eye (which so generally arises in this class of injuries) had appeared. The eye was now doing well. The crystalline lens had luckily escaped injury, as was evident, since no opacity could be seen, and he had never seen a case of traumatic injury of lens or its capsule, however slight, which was not immediately followed by opacity or cataract, nór could this be hindered by any treatment that might be instituted In confirmation of this he could cite two unpublished cases which had come under his observation since he had been in this city, where the lens capsule had only been punctured; in one case by a pin in an arrow head, in the other case by a sharp thorn. In both boys opacity of the lens or cataract immediately followed the injury. The lens thus injured by the thorn finally absorbed entirely away, as was easily demonstrated by placing before the eye a convex lens of 2½ inch focus, when the boy could read the smallest print with ease. The first case still has a cataract.

At this point the Dr. exhibited six eyes lost by injury or inflammation which he had enucleated during the past year on account of sympathetic impairment of vision. Each of these patients but one was able to wear an artificial eye. This was the case of a physician, who, twenty years before, had lost the eye, the result of a blow from a snow ball. Enucleation in this case was followed, and his life put in great jeopardy by a severe erysipelatous inflammation in the socket, it being the only case that had occurred in his practice. Considerable improvement of vision resulted from the operation, and the physician is now engaged in active practice.

The next eye was removed from a young lad only a few months since; the case was first brought to him seven years before; the sight was destroyed—the result of a punctured wound in the ciliary region—made by a nut picker. The symptoms of sympathetic irritation which then set in were promptly arrested by the use of artificial leech to the temple, and other antiphlogistic treatment; little or no disfigurement of the eye resulted from the injury, and it was only a few days before the eye was enucleated that dangerous symptoms rekindled themselves in it, and these had been brought on by over-taxation of the eye.

The Dr. here remarked that while it is true that injuries of the eye involving the ciliary body are the most dangerous that can occur to the organ—the most apt to be followed by sympathetic ophthalmia—he could cite more than one case from his own experience where an eye had sustained the most severe injury in this part, and yet he had got along without removing the organ. In this connection he would therefore say that he had always felt it to be his duty when the sight of an eye was lost, and but little or no disfigurement resulted from the injury, to make every effort commensurate with safety to retain the organ; no substitution of an artificial eye could do as well. They not infrequently produce so much irritation that they cannot be worn, and sometimes are followed by sympathetic ophthalmia itself. To warrant the removal of an eye in such a case, therefore, when but little disfigured, the symptoms of irritation or inflammation present should be not only marked, but such as do not give way at once to active treatment. Without such obstinate symptoms as these in the case no pathological condition which the interior parts of an eye thus removed may present upon dissection can, per se (except it be a tumor or a malignant growth or foreign body), be urged in justification of its removal.

For want of time he made no comments upon the history of the remaining eyes.

Dr. Walker showed a "plaster cast" after Sayre's method, taken from a little patient 3½ years old, and upon whom he had put it for disease of the vertebræ in the upper dorsal region eleven weeks before. The child when first seen had a peculiar gait, resembling locomotor ataxia; the body was thrown forward and he could not pick an object from the floor without supporting himself by placing a hand on the knee. There was difficulty in respiration, and pressure on the diseased parts caused great pain. At the present time he is much improved in health, walks and breathes naturally, and can pick up an object from the floor without supporting himself.

In order to apply the dressing, the patient has to be suspended equally from the head and armpits, so that the toes will just touch some support. In this case when suspended the body was lengthened about half an inch.

The Dr. is the first who has used the dressing in this city.

Dr. Inglis inquired if Dr. Sayre advocated this dressing for lateral curvatures.

Dr. Walker answered that Dr. Sayre regarded lateral curvature as being due to muscular contraction rather than to disease of the vertebræ; he used the plaster dressing, however, first dividing the contracted muscles subcutaneously.

Dr. Jenks exhibited photographs of some fœtal monsters, sent to him by Dr. Engelmann, of St. Louis, Mo. One of the pictures represented a fœtus without arms or femurs. Another was an acephalous monster, with an immense ventral hernia. Another showed extreme deformity of feet (talipes varus) and hands, both being webbed.

Dr. Cleland had met several cases of roseola which resembled scarlet fever very closely. It lasted about five days, without fever, desquamation, or swelling of tonsils, by which means it was to be distinguished from scarlatina. He thought colds and indigestion was the origin of it.

Dr. Andrews had seen similar cases. In one it occurred twice in the same subject within two years.

Dr. McGraw spoke of a fatal case of tetanus in his practice, following amputation at the hip joint, for a deep and extensive burn of the thigh, caused by the ignition of stick phosphorous which the boy had put in his pocket a short time before the accident while in a match factory.

Dr. Cleland had had very satisfactory results from the use of hydro-bromic acid in headaches from over mental strain and in nervous headaches. Thirty drops of the acid with one-eighth of a grain of morphine, he said, were almost specific, if used before nausea set in; if after, it seemed to increase the difficulty.

Dr. Andrews suggested the addition of caffeine in the latter cases.

Dr. Connor found hydro-bromic acid the most valuable of all remedies for controlling noises in the ears accompanying acute inflammation. In a case of syphilitic trouble of the brain causing attacks simulating epilepsy, the use of the acid with 15 drops of fl. ext. guarana entirely controlled the attacks.

MISCELLANEOUS BUSINESS.

Dr. Carstens inquired of Dr. Jenks if he always got the expected results from his prescriptions of viburnum prunifoleum. He said there were several varieties of viburnum, and that he did not believe that they possessed equally the same medicinal virtues.

Adjourned.

JAS. D. MUNSON, M.D.,
Secretary.

ANNUAL MEETING.

DETROIT, October 23d, 1877.

The President, Dr. G. P. Andrews, in the chair.

EXHIBITION OF PATIENTS, ETC.

Dr. Noyes exhibited a patient who had for 18 years suffered from an obstinate inflammation of the eyes. He considered the case one of unusual interest. The disease commenced when she was about twelve years old; so great was the pressure exerted upon the eyes that she had been obliged, while residing in Canada, to submit to slitting open of the outer canthus of each eye eleven times. She also, some months before consulting him, (nearly two years ago), had canthoplasty performed, in this city, on one [illegible] both eyes. This operation also failed to give more than [illegible]

The righ[illegible] be entirely destroyed by the
ulcerati[illegible] it, and the left eye
nearly [illegible] produced
in th[illegible] suffering it
beca[illegible]
was [illegible]

In a short time the cornea cleared and vision returned so that she could see to thread the finest needle; but eleven months thereafter all her troubles had returned, and she was as blind as before. The first of December last the final operation was made, and has resulted in curing the entropion and relieving the eye of all dangerous pressure upon it. Canthoplasty was performed, as in the first instance, with free division of the external canthal ligament, but instead of stitching the conjunctiva into the wound, a large, tongue shaped piece of skin was taken from the temple and carried into the incision, and secured to its edges, and also to the conjunctiva. This wound healed, leaving no deformity.

Since this operation was made vision has been good to within a short time ; there is now a slight entropion, principally of the lower lid, which a slight operation will cure.

Dr. Noyes also reported an interesting case of loss of hearing in right ear, in a healthy man in the prime of life, which occurred six years ago, following a severe concussion on same side of head. The patient, who resides in a remote part of the state, when he applied for treatment three months ago, suffered from severe attacks of dizziness, which came on always in the morning on getting out of bed, and seldom at any other time. These attacks increased in severity; often he was obliged to lay hold of something to keep himself from falling.

Inspection of the auditory canal revealed a chronic inflammation of the passage, and a rent or opening of about three lines at the posterior and inferior quadrant of the drum. There was also a slight discharge issuing through the opening from the middle ear. After the discharge and inflammation of the meatus had been cured by appropriate topical treatment, Blake's paper dressings were applied to the perforation in the drum. These dressings were renewed once or twice a week. Under this treatment the opening in the drum has closed up; the dizziness has disappeared, and the hearing is now measurably restored.

PREVAILING DISEASES.

Dr. Brown roported diphtheria, of a mild type, in his practice.

Several of the gentlemen had met with it, mostly of a mild type. Drs. Bradley ond Yemans within two weeks, had each had a fatal case, both of which were very malignant in character.

Dr. Shurley had seen three fatal cases of scarlet fever, all in poor families, in which his directions could not be carried out. Death occurred on the fourth and fifth days. The symptoms were. intense fever, delirium, angina, with great swelling of the glands of the neck, œdema of the face, &c. The latter he thought was due to the pressure of the glands on the blood vessels interfering with the return circulation. Death seemed to take place from failure of heart's action.

Dr. Flintermann reported a case of miscarriage—at the seventh month—and during the second week of typhoid fever, which was followed two days after by the death of the patient. One peculiarity of the case was, that the temperature was never above 102° F. Diarrhœa; iliac tenderness; the characteristic eruption; dry tongue, etc., were present, leaving no doubt as to its typhoid nature. The onset of the labor was sudden, and it was quickly terminated. The child lived one day after it was born.

This was the second fatal case the Dr. had seen in this city, and he thought recovery from typhoid fever during pregnancy very rare.

Drs. Andrews, Jenks and Gilbert related cases of miscarriage occurring during a form of continued fever. These cases were mostly followed by recovery. Their combined testimony showed that the labors set in suddenly and were rapidly accomplished. Dr. Jenks stated that he examined one patient and found the os not dilated, but in two hours and a half from that time she was delivered. This woman died, but the cause of death was septicæmia.

Dr. Brown exhibited a small, chalky concretion, with the following history: The patient had been for some months troubled with a cough; no chills or fever; examination revealed no heart or lung disease. No relief was afforded by treatment. Four weeks from the time he first saw her she had a violent and prolonged fit of coughing, and the next day threw up this concretion. It was about half an inch in length, one-fourth of an inch in thickness. She made a rapid recovery.

Dr. Jenks related a similar case. Examination revealed slight dulness at apex of left lung. There were chills, night sweats and emaciation. Finally, during a fit of coughing, she expelled a chalky concretion of tubercle. From that time she began to improve, and is now in good health.

Dr. Carstens reported a case of vaginal hernia. The patient was confined two months ago; her labor was tedious, but instruments were not used. Examination showed slight rupture of the perineum and prolapse of the bladder. There was a large soft tumor in the vagina, in which the intestinal contents could be felt. The swelling, when she is in the erect position, protrudes beyond the vulva.

Dr. Jenks—I saw the case, and think it a rare if not an anomalous one. Coughing produced a distinct impulse, but that does not signify in this location. The tumor was tympanitic on percusiion. Brown, in his Typographical Anatomy, states that hernia never occurs in the pouch of Douglass.

Dr. Jenks spoke of the advantages of the postural treatment of tympanitis, after ovariotomy, and also of the possible advantages of this method in other pathological conditions with intestinal tympanitis. He related the following case as an illuslustration:

"Several weeks after the operation of ovariotomy the patient's bowels became very much distended, causing great discomfort. As the time for peritonitis and septicæmia had passed by we thought it was due to atony of the intestines. Nux vomica, creosote, mint tea (per enema), were given without benefit. We attempted to draw off the flatus with a rectal tube, but failed, owing to some obstruction above the rectum and in the vicinity of the pedicle." This suggested to us the postural treatment, and we immediately raised her up by the hips—in reality, inverted her. "This method was entirely successful, the flatus being rapidly expelled. From this date she was occasionally changed from side to side, and recovered without further difficulty."

Dr. Inglis reported the following case:—A young lady, aged 19, for a few months back has been gradually emaciating. She began menstruating at sixteen, and has been regular until four months ago, when it suddenly ceased. Her hair at that time fell out, but at present the scalp is covered with fine downy hairs. Her head is very large, the result of congenital hydrocephalus—the bones, however, are united, and her intellect is not affected. Her appetite is very poor: I can find nothing to account for the emaciation. There is no history of syphilis in the family.

ELECTION OF MEMBERS.

Drs. H. A. Torrey and M. M. Tucker were elected active members, and Thad. A. Reamy, of Cincinnati, O., honorary member.

ELECTION OF OFFICERS.

The following officers were elected for the ensuing year: President, Dr. Leartus Connor; Vice President, Dr. John Flintermann; Secretary, Dr. James D. Munson; Treasurer, Dr. Judson Bradley.

On motion, the thanks of the Academy were tendered to Dr. Inglis for the use of his office as a place of meeting.

On adjourning the members were invited to the residence of Dr. Cleland, where a bountiful repast had been prepared for them.

J. D. MUNSON, M.D.,
Secretary.

Wayne County Medical Society.

DETROIT, October 4, 1877.

The Wayne County Medical Society convened this evening in annual session with the president in the chair:

The reports from the secretary and the treasurer show a membership of twenty; average attendance for the year now closed, 9½; and a balance of cash on hand after all expenses had been p[illegible]

The [illegible] Society was organized temporarily [illegible] of association signed by ten members of the profession in the county. These articles were filed with the Secretary of State on the 21st of August, 1876.

The following were elected officers for the ensuing year:

Wm. Brodie, President, P. Klein, Vice President, W. H. Rouse, Secretary, G. R. Richards, Treasurer; H. F. Lyster, J. B. Book, Wm. C. Gustin, J. J. Mulheron and E. S. Snow and Wm. Brodie and W. H. Rouse, *ex officio*, Board of Directors.

The reports of the officers show the society to be in a very flourishing condition, and the members seem pleased with the plan of organization.

This being the annual meeting, much of the time was enjoyed as a social reunion.

W. H. ROUSE, M.D., *Secretary.*

DETROIT, Nov. 1, 1877.

Dr. Richards reported a case of sudden death in which the cause was not very obvious. A young lady aged 20, in fair health, walked about a half a mile to the store in which she was engaged in the morning. Soon after she arrived she fell to the floor and was carried home. The physician who first saw her pronounced it congestion of the lungs, gave a favorable prognosis, left her, but returned in a short time to see her die. There was much difficulty in breathing, and considerable discharge of slimy mucous, untinged with blood, from mouth and nostrils, but no coughing. The corpse was unusually white, but a *post mortem* was not permitted to verify the diagnosis.

Dr. Lyster had seen a colored lady, aged 77, who married at 19. She has had 14 living children and two miscarriages, and was always up one week after confinement. Her menses ceased when she was 55 years of age, but reappeared 14 years afterwards, and have continued regular ever since, about eight years. She was born in Toronto; her mother had 15 children, and lived 110 years.

Dr. Gustin knew a woman who ceased to menstruate at 40. She again menstruated regularly from 60 to 80, and died at 90.

Dr. Brodie reported several cases of scarlatina and of cerebro-spinal meningitis.

Dr. Richards and others had observed a great tendency to perspiration and slow recovery of patients with fevers. The usual remedies would not readily check the tendency to perspiration.

Dr. Klein has seen many cases of intermittent fever lately. He thinks the wooden pavements may possibly act as exciting cause.

W. H. ROUSE, M.D.,
Secretary.

Correspondence.

EDITORS DETROIT MEDICAL JOURNAL:—*Gentlemen*—The editorial article in the November number of the JOURNAL, although in the main correct, is only correct so far as it goes, and like most of the strictures upon specialists, is more or less one sided. Not only is this the case with the editor's portion of the article, but it is also the case with the quotation. All true specialists will agree that the citation of trachoma, by Dr. Hamilton, in his remarks, is an exceedingly unhappy one. The idea that "while local treatment *may* be useful it is *by no means an essential* part of the treatment," is indeed good, or it might be if it came from a less intelligent source. The Dr. (Prof. H.) is evidently "at sea" regarding the pathology of trachoma—granular conjunctivitis—and he does the very thing he accuses specialists of doing—attaching "undue importance to the local lesion, and to put it in the relation of cause when it actually stands in the relation of effect,"—only he reverses it. "Every practitioner knows" (it seems not), or should know, that trachoma is a *local affection*, purely and simply so, and *does not* depend "wholly upon a general dyscrasy," but in fact, the "general dyscrasy" is most frequently due to the protracted course of the disease, the effect being to undermine the health and spirits of the patient. That defective hygiene is a frequent cause is admitted, and a specialist who ignores the hygienic indications in the treatment of this or any other class of cases, is, I contend, *not a true specialist.*

I can appreciate the "discussions" spoken of by Prof. H., and think that he overlooks the fact that the *local* treatment was *alone* being considered. There is no chance for argument on the question "that a complete knowledge of medicine and surgery as a science is necessary," and that a specialist should be regularly educated in all the branches, and I think, with the editor, that "specialism should be regarded as a higher department of medicine, whose ranks should be recruited only from the rank and file of the general practitioner;" in other words, that a specialist should have several years experience in general practice ere he sets himself up as a specialist, or is recognized as such by the profession.

No man, however talented, can be a complete master of the science and practice of medicine and surgery in its fullest acceptation, and such is the received opinion, with respect to the practice in the large cities, in which a division of the branches are getting to be more observed. The reason is obvious. Any one of these branches is sufficient to occupy the mind, but a complete knowledge of all is far beyond the limits of the human understanding. This position being admitted, and where is the well educated physician or surgeon who can deny it, it follows that specialists in medicine are consonant with reason, common sense and expediency.

Very truly,
EUGENE SMITH.

Lingual Ophthalmology.

EDITORS DETROIT MEDICAL JOURNAL.—I was very much interested in the report of Dr. Eugene Smith on ophthalmology, especially that part relating to ophthalmia neonatorum, as that is the disease of the eye most frequently demanding the attention of the general practitioner; and this being the case it is his *duty* to be able to recognize the disease, and at once treat it promptly and effectually.

I believe, with Dr. Smith, that a child should not lose its eyesight with this disease, and will not, if treated properly in the beginning, but a few days may place a child beyond the skill of any ophthalmologist.

It requires courage upon the part of the physician to apply a saturated solution of argenti nitras, in the purulent form, as the little fellows scream, and excite a great deal of alarm in the minds of the parents and friends.

I remember one case of six years age, in which I applied the lunar caustic; the child screamed bitterly, alarmed a neighbor, who at once tried to have me arrested with a view to a suit for mal-practice, but as I had the confidence of the parents, and the child was very much better in twenty-four hours, the efforts for my arrest ceased.

Dr. Smith's method of treatment is, of course, accepted by the profession, but as I became acquainted with an entirely different (and to me, new) plan of treatment, I will relate it for the benefit of your readers.

Last September I was called to see a child a few days old suffering with purulent ophthalmia, and on inquiry ascertained that the disease made its appearance when the child was "three days old."

Succeeding in opening the lids, thick, heavy matter rolled out upon the cheeks, which being removed, enabled me to examine the cornea, which I found was not injured.

Now for the "treatment." The mother of the child informed me that when she first saw the disease she applied "breast milk," and while in the act of so doing, one of her neighbors called in, and remarked that "that way would do no good," but that she must remove the pus with her *tongue* (lick it out). The mother being somewhat fastidious, and "set in her ways," objected to this mode of treating diseases of the eyes, whereupon her neighbor took the child, cleansed the eyes with her tongue, and *swallowed* the pus, as otherwise the treatment would be unavailing.

The woman who did this is the mother of several children, and she informed the mother of the diseased child that she always treated her children in this way when they had "sore eyes," and that she never called in a doctor for "such little things."

It being distinctly expressed that a man's tongue was "no good," in such cases, this kind neighbor performed the operation several times, but as her tongue had in some unaccountable manner lost its potency, the child growing worse, the parents losing confidence in "any woman's tongue for sore eyes" sent for me to treat the child.

I treated the child substantially as Dr. Smith directs, except that I ordered the frequent removal of the pus with warm water.

Suffice it to say, that the child rapidly recovered, and is doing well, although it contracted whooping cough in a few days after improvement of the eyes commenced.

If any of your readers are disposed to try the "tongue treatment" in ophthalmia neonatorum, remember that only "woman's tongue" is available.

N. F. BROWN, M.D.

760 Fort street, west.

Ashmead's Article on "Glycerite of Kephaline" Discussed by Dr. Samuel R. Percy.

Editors Detroit Medical Journal.—There is an article in your journal for October, page 742, headed "Glycerite of Kephaline," by H. E. Ashmead, M.D., Philadelphia.

If you will look in the N. Y. Hospital Gazette, page 246, you will find much the same thing from Dr. Charles G. Polk, of Philadelphia.

The writer of this article has taken particular pains to advertise Dr. Polk's medicine in your journal, and has told particularly where it is to be obtained, at Polk's agent in New York. He then says, "The writer is in no manner concerned in its production or sale."

In answer to this I can only say that about a year ago, when Polk first put this medicine upon the market, letters from dealers here were written to Polk about it; these letters were usually answered by Ashmead, and Ashmead's name was advertised as the manufacturer. The Hospital Gazette of October 15th, makes an accusation against Dr. Polk that he was Professor in the "American University of Philadelphia," an institution about which so much has been said of its granting diplomas to any person who pleased to pay for them, and he instances a fact of a gentleman having seen one of these diplomas in the hands of a Frenchman who could not speak a word of English, and who said that he had not been in the United States a month.

In the Virginia Medical Monthly for November, there is a letter from Dr. Polk, in which he denies that he has any connection with that College, and characterizes as "transparently false" the statements made by the editor of the Hospital Gazette.

I have before me the "Eclectic Medical Journal of Pennsylvania," on the front page of which there is an advertisment of the "American University of Philadelphia," "Dental Department and Department of "University College of Pharmacy" "Officers of the College" "Charles G. Polk, A.M., M.D., Phar. D., President," "Charles G. Polk, A. M., M.D., Phar. D., Professor of Materia Médica."

On the last page of this journal is another advertisement of the "American University of Philadelphia

MEDICAL DEPARTMENT
ECLECTIC MEDICAL COLLEGE OF PENNSYLVANIA.
SESSIONS OF 1877 AND 1878.
October 1st, 1877, and continues to July 1st, 1878.
FACULTY:
CHARLES G. POLK, M.D., PH. D.,
Professor of Surgery, Theoretical and Practical."

Polk has for some time been advertising his medicines by writing about them in the Eclectic Journals and in circulars scattered before the public. These means did not reach the medical profession, so, no one knowing who he was, he has succeeded in getting his writings into respectable journals, and has done a capital advertising business in that way. When he cannot do all that he wants in that way, his *confreres* help him, as has been done in your journal.

Perhaps you and your reading public would like to know what his “ Glycerite of Kephaline” is. Let us see what it purports to be in different journals :

“GLYCERITE OF KEPHALINE.” “ FORMULA.,’	In his printed formula scattered before the public.	Druggist's Circular, Oct., 1877.	Virginia Med. Monthly, Oct. 1877.
Phosphide of Nitrogen	1 part		
Cerebrate of Ammonium	6 “	8	8
Cerebrate of Calcium	8 “	8	8
Cerebrate of Sodium	3 “	5	8
Cerebrate of Magnesium	½ “	3	5
Cerebrate of Manganese	½ “		
Free Cerebric Acid	5 “	5	
Pure Glycerine	76 “	60	60
Cerebrate of Potassium		5	3
Glycero-hypophosphorus Acid		5	5

In the Philadelphia *Medical Times*, of September 29, he says: “ I may here state that the Glycerite of Kephaline is a saturated solution of cerebric acid, *cerebrate of nitrogen*, cerebrate of sodium in chemically pure glycerine.”

You see we have four formulæ, at of about the same date, that are entirely and essentially different. It would appear that he himself has never known how it was made and the very laudable notices he has in print are all his own.

What the “ Phosphoid of Nitrogen” and the “ Cerebrate of Nitrogen” may be, I must leave for an eclectic professor to describe. No chemist has ever known how to combine phosphorus with nitrogen gas, or the unknown substance, cerebric acid, with nitrogen gas. The cerebrate of ammonium and the other cerebrates he mentions, of which his Kepaline is made, is most perfect chemical nonsense. There is amongst modern chemists no such substance known as cerebric acid, therefore there cannot be “ cerebrates.”

Even *cerebrin*, the principle described by Thudichum, is a heterogeneous principle utterly devoid of any phosphorus; and Kephaline is a distinctly opposite principle, containing phosphoids in a large degree. But out of a principle containing no phosphorus Polk would wish us to understand that he makes the highly phosphorized principle Kephaline. Cere*brin* is a neutral principle, and will not combine with alkalies to form salts, therefore his cerebrates are the mere salts of his imagination, or rather of his desire to make a marketable commodity.

Professor Polk is playing a bold game, and his eclectic *confreres* are assisting him to the best of their ability. His earlier plagiarized communications on the phosphoid elements were mostly confined to his own eclectic journals; by degrees he crept into the scientific medical journals, and within the last few months he has put his advertisements into some of the best journals in the country—without paying for them. He asserts that he has no connection with any college, and calls the editor of the *Hospital Gazette* many hard names for saying that he was. The advertisements of the Eclectic Journal say that he is President and Professor of these institutions till July 1st, 1878. If he has been turned out of these institutions for excessive modesty and conscientiousness, he has not advertised that fact to the world while advertising his medicines.

I am, Messrs. Editors,
Most respectfully,
SAM'L R. PERCY, M.D.

47 W. 38th St., New York.

Abstracts From Exchanges.

Practice of Medicine.

GASTRIC ULCERS AND PERFORATING ULCER OF DUODENUM AFTER A BURN.—Mr. Stokes *(Dublin Jour. of Medical Sciences.)* —This specimen was taken from a patient aged eighteen years, who was admitted into the Richmond Hospital under my care suffering from the effects of a very severe burn. His friends informed my clinical clerk, Mr. Ryan, that he was subject to epileptic fits, and that in one of them he fell forward into the fire, and sustained the injury for which he came to the hospital for treatment. His face was very [illegible] burned, and also his head, and almost the entire front of the thorax, the upper portion of the abdomen, and also the right arm, the degree being the fourth of Dupuytren or the third of Hebra.

When admitted inlo the Hospital he was suffering from great collapse, from which, however, he rallied. He went on from that until the day previous to his death extremely well. There was no evidence during the entire time of his stay in the hospital that there was any internal mischief at all. He took his food well and was cheerful, and, on the whole, we formed a not altogether unfavorable opinion as to the chances of his ultimately getting over the effect of the injury, with, however, of course, the result of great deformity should he live. However, on the seventeenth day after his admission he had a severe attack of hæmatemesis, but there was no evidence of peritonitis whatever. Shortly after that he became collapsed, and died on the morning of the eighteenth day.

On examining him we found very extensive ulceration, involving not merely the duodenum but also the stomach. There was a very large oval and clearly defined gastric ulcer at a considerable distance from the pylorus; at the junction of the stomach and duodenum there were two small ulcers; and further on a large, perforating ulcer in the duodenum. There were also two smaller duodenal ulcers, which, however, were not perforations.

Only one specimen similar to this has been exhibited to the Society, and it was by the late Professor Smith, in 1858; the "Proceedings of the London Pathological Society" also only show two examples of a similar kind. The perforation, therefore, is one of considerable rarity, and makes this case one of great interest. Another feature of interest is the existence of gastric ulcers, which I have never seen before in cases of this sort. Examples of it may be found in the literature of the subject, but I am not aware of them.

Another peculiarity of this case was the absence of all peritonitis. This was also a characteristic of the case exhibited by Professor Smith. In his case three ulcers perforated all the tissues of the intestines. In this case no blood was found in the intestines, and there was no evidence of peritoneal inflammation, The three things rendering the case one worthy of exhibition were, first, the existence of gastric ulcers; secondly, the large perforating ulcer in the duodenum; and thirdly, the absence of all peritoneal inflammation. The patient became collapsed immediately after the vomiting of blood on the evening of the seventeenth day, and, as I have mentioned, died on the morning of the eighteenth day.—*Edinburgh Medical Journal.*

NITRIC ACID FOR HOARSENESS.—Dr. W. Handsell Griffiths *(Canada Medical Record)* says that a few drops of nitric acid in a glass of sweetened water, a couple of times a day, will be found an excellent remedy for the hoarseness of singers. One of the largest fees ever received by him—so he says—was for this prescription.

CHLORAL FOR REMOVING WARTS.—(*Canada Medical Record.*)—A solution containing about twenty grains of chloral hydrate to the ounce of water, is recommended by Dr. Craig as being effectual for the removal of warts. The operation is said to be painless.

THE HEREDITY OF CEREBRAL HÆMORRHAGE.—*(Med. Times and Gazette. Can. Med. and Surg. Journal.)*—A number of cases were recently brought before the Paris Academy of Medicine. In the majority of these the tendency seemed to be to follow the maternal side of the family. In two families the grandmother, mother and son were affected in order. In a third family the gaandmother had been hemiplegic for a long time; her seventeen-year-old grandson was next attacked, and after him his mother, aged 45, all with cerebral hæmorrhages. From all his observations Dieulafoy came to the following conclusions:

1. Cerebral hæmorrhage is hereditary.

2. Within the same family it may cause either a simple hemiplegia or an apoplexy; the severity of the symptoms and the course of the affection depend upon the locality of the cerebrum which is the seat of the injury.

3. In those predisposed by heredity it usually occurs in ad-

vanced life, but not unfrequently at various other periods, and sometimes members of the younger generations are affected before those of the elder.—*Allgemeine Med. Cent. Zeit. Clinic.*

MILK DIET IN BLADDER DISEASE.—(*Lancet. Canada Medical Record.*)—Dr. George Johnson, of King's College Hospital, in a recent lecture, alluding to the use of an exclusive milk diet in various forms of disease, such as chronic diarrhœa and dysentery, typhoid, and acute albuminuria, instanced some cases of bladder trouble in which amelioration followed rapidly after a free and almost exclusive use of milk. A young lady of seventeen had suffered for many months from severe attacks of pain over the bladder, so that during a period ranging from two to five hours, she would pass water every two, three or five minutes. Opium pills and hot baths afforded only temporary relief. Oysters or fish always brought on an attack. Her urine was acid and contained pus. She was advised to try a milk diet exclusively, the use of hot hip baths at night, and occasional opiates, which thus far were the only remedies given for her relief. She also took some pills containing camphor and the extract of henbane.

About nine months afterwards she was fully restored to health, and the urine was perfectly normal, though she was liable to relapses, and then, upon resuming the exclusively milk diet for twenty-four hours, was again restored to her usual good health.

Two other instances are given in which milk alone was given for chronic cystitis, and no other medicine whatever. In each case the cure recorded is absolute, and, after one case the patient was able to resume ordinary plain fare and drink his wine at dinner as usual. The milk is to be taken cold or tepid, and not more than a pint at a time. With some persons the milk agrees better after it has been boiled. If the milk be rich in cream and cause heartburn, headache, diarrhœa, &c., the cream may be partially removed by skimming. The cream, however, overcomes the tendency to constipation. Dr. Johnson thinks that the milk diet will be made use of by surgeons who are contemplating lithotomy or lithotrity, so as to lessen, as much as possible, the inflammation and catarrh resulting from the mechanical irritation of the mucous membrane of the bladder.

HYDRASTIS CANADENSIS IN UTERINE HÆMORRHAGE.—*(Medical Record. Can. Med. and Surg. Jour.)*—In the Chicago *Med. Jour. and Exam.*, August, '77, Dr. Gordon, of Hannibal, Mo., states that he has for the last ten years made use of the tincture of hydrastis in cases of uterine hæmorrhage, with such satisfactory results that he now seldom resorts to any other remedy. When the hæmorrhage is severe, he gives twenty to thirty drops of the tincture, at short intervals, until the actual bleeding is controlled. The remedy is then continued in doses of from two to five drops at longer intervals. When there is much prostration from loss of blood, he combines the tincture of cinchona flava with the hydrastis. In hæmorrhagia, two to five drops of the tincture of hydrastis every two or three hours, or oftener, usually gives prompt relief. Larger doses may be used if necessary. After the flow is reduced to its normal quantity, the minimum dose is continued twice a day until the next menstrual period, when, if necessary, the larger doses are resumed. In dysmenorrhœa dependent on chronic endometritis, from seven to ten drops of the tincture, with an equal quantity of a solution of bromine (gtt.j–Oj) three times a day, have given satisfactory results.

SUPRA-ORBITAL NEURALGIA.—*(Dr. C. Ræse. Leipsig, 1876, Inaug. Dissert.)*—Says the most frequent causes of supra-orbital neuralgia are malaria, syphilis, hysteria, cold and injury. Furthermore it accompanies different forms of eye affections, and in some rare cases is due to thickening of the bones of the skull, &c. Typical malarial neuralgia occur sin the young and middle aged, and men are oftener affected than women. Shoemakers, on account of their work, are peculiarly susceptible to neuralgia, but not the typical form. Typical supra-orbital neuralgia is observed in the course of cold or hysteria. The pain of supra-orbital neuralgia generally begins in the morning and lasts from half an hour to six hours. The quotidian type is exceptional. The right supra-orbital nerve is more often affected than the left, and both are very seldom affected together. The proportion of these kinds in 61 cases was 35:18:8. In occasional cases a glaucomatous condition and anæsthesia of the retina have been observed. The best remedies in typical cases of neuralgia are quinine and arsenic. Iron is also very useful. Among the preparations large doses of ferrum oxydatum S. hydricum have been well thought of. Hot foot baths are also beneficial, especially when the neuralgia is double. Blistering the forehead or painting it with iodine may also be tried.—*Schmidt's Jahrbucher. Canada Medical and Surgical Journal.*

ON THE USE OF PODOPHYLLIN IN HÆMORRHOIDS.—(*Druggist's Circular.*)—Dr. Riviere, in the *Gazette des Hopitaux,* states that he has had fifteen cases which were most conclusive as to the value of podophyllin in hæmorrhoids. Among the constipated patients for whom he prescribed podophyllin, many suffered from hæmorrhoids, which he attributed to permanent constipation; that is to say, to the congestion which was its natural consequence. Subject himself to hæmorrhoids, though not habitually constipated, Dr. Riviere tried the podophyllin on himself and found immediate relief. The hæmorrhoids again made their appearance, but were removed by the same means. He has since frequently employed the same method of treatment and always with equal success, giving one or two podophyllin pills of one fifth of a grain each so as thereby to soften the fecal mass. Encouraged by this success he tried podophyllin for chronic hæmorrhoids likely to necessitate operation. In these cases also he obtained immediate relief and a cessation of all the usual distressing symptoms of this affection. The only drawback was the necessity for the daily administration of podophyllin. In some cases, however, the patients were able to leave off the use of the medicine for a long time. Some even were entirely cured.

Therapeutics.

FORMULA FOR MIGRAINE.—M. Fort recommends the following: Sulph. Quin., grs. xv, pulv. bellad., grs, iv, ext. digitalis, grs., vijss, ext. valerian, grs. xv, mel., q. s., ut f. pil. xx. Whatever may be the length of the interval which separates the paroxysms –whether a week or month, or more—the patient should take the twenty pills, commencing four days before the expected recurrence of the paroxysm, when he will take one in the morning, fasting, and one at bed time, next day he takes three—two in the morning and one at night; the day after that he takes six—three in the morning and three at night; on the day before the paroxysm is expected he will take nine—four in the morning and five in the evening. If the expected paroxysm be not in this way prevented, it will, at all events be mitigated, and the patient will recommence his course of pills four days before its expected successor.—*Medical Times and Gazette.*

Surgery.

ASPIRATION IN THE TREATMENT OF HERNIA.—*(Med. and Surg. Reporter.)*—A case is reported in the *Medical Press and Circular* where the tumor descended and became the size of a football in a few minutes, and so exquisitely tender that no handling could be permitted. To allay the pain a quarter of a grain of acetate of morphia was injected subcutaneously, warm fomentations applied and a stimulating enema administered. An hour afterward symptoms of strangulation appeared and two unsuccessful attempts at reduction were made, one after the patient had been placed in a warm both. Dieulafoy's aspirator was then brought into use, and a hot needle inserted into the tumor, but with unsatisfactory results. This was then replaced by a No. 2 needle, which brought away some reddish fluid, flatus, and fecal matter, when the needle became clogged. It was then withdrawn, cleaned, and re-inserted in another portion of the tumor with the most satisfactory results. Large quantities of flatus escaped, and the tumor was very rapidly diminished in size, so that the merest effort at taxis replaced the bowel.

The patient rapidly improved after the operation, having daily stools and no inconvenience whatever in the abdomen. The features of the case most worthy of remark are,

1. That morphia subcutaneously injected was preferred to the administration of chloroform, which was considered dangerous on account of the pressure of renal disease and cardiac weakness.

2. That the patient escaped peritonitis notwithstanding the peculiar liability such persons have to inflammation.

3. The facility with which the tumor was reduced after aspiration.

, DIAGNOSIS OF OVARIAN DISEASE (*Med. Times and Gazette, Can. Med. and Surg. Journal.*)—Prof. Bacelli, of Rome, says that percussion .of the ilium may aid in the diagnosis of

1. Simple ovaritis.
2. Of a commencing ovarian tumor.
3. Of the sides of origin (right or left) of large ovarian tumor whose early origin is unknown.

Percussion of the diaphysis of the ilium, according to the author, gives rise to acute pains in simple ovaritis unaccompanied by diffuse peritoneal inflammation. An ovarian tumor gives rise to marked dullness on the side on which it is situated, while there is clear tympanitic resonance on the side of the healthy ovary.

The rules to be adopted in percussing are as follows: The patient must lie on her side, with the legs drawn up, and the thigh which is uppermost adducted and pressed toward the abdomen so as to place that part of the diaphysis of the ilium which lies below the centre of the insertion of the gluteus medius muscle in the position best adapted for percussion. The exact point of the external surface of the ilium to be percussed is a little below a straight line drawn from the posterior superior border of the iliac crest to to the upper edge of the acetabulum. Taking the average length of this line at the centimetres, the point to be percussed lies between five and six centimetres below the crista ilii.

It is necessary to percuss forcibly and to use a pleximeter and hammer instead of the fingers only. The two sides must of course be percussed at identical spots. The practical value of this method is illustrated by two or three striking cases in which it was most successfully applied to clinch a doubtful diagnosis.

Editorial.

NOTICE TO CORRESPONDENTS, ETC.—Communications intended for publication, and books for review, should be addressed to "Editors of Detroit Medical Journal, care of E. B. Smith & Co., Detroit."

All remittances of money, all letters on the business of the JOURNAL, pertaining to subscriptions or advertisements, should be addressed exclusively to the publishers, E. B. Smith & Co., corner Fort and Griswold Streets, Detroit, Mich.

Original Articles, Reports of Medical Societies, Observations, Correspondence, News, etc., of general interest, are respectfully solicited from every source. Articles should be practical and carefully prepared.

The Editors will not be responsible for statements made over the names of contributors.

Our Policy.

The present number closes the first volume of the DETROIT MEDICAL JOURNAL. The circumstances to which this journal owes its origin are fresh in the minds of our readers. The object sought to be accomplished was the union of elements which were, to a certain extent, represented by the two publications whose consolidation gave rise to the present journal. While we are not credulous enough to believe that this object has been fully accomplished, we do flatter ourselves that the policy which we enunciated in our prospectus, and which we have rigidly adhered to, viz., the eschewing of all questions of medical politics and the devoting of the journal to purely scientific work, has borne fruit in the existence to-day of a more harmonious and desirable professional sentiment throughout the State than has obtained for many years The success of this policy has demonstrated in a very practical manner the fact that the leisure moments of the practitioner are much more profitably employed in advancing the legitimate objects of his calling than in wrangling over questions which, at the same time, divert his mind from its proper channel and provoke anything but kindly feelings in the mind of his brother. We feel that our humble efforts have been amply repaid in that they have met with such gratifying recognition. In addition to this our publishers report a very satisfactory balance sheet, when the drawbacks of this, in common with those of all new ventures, are taken into consideration.

For the coming year we have nothing new to promise. We shall pursue the even tenor of the way we have blocked out, relying on the profession for a continuance of the sympathy and support which it is always ready to extend to honest effort.

IN calling attention to Dr. Percy's letter in our present number we need not remind our readers of the fact that we are not responsible for the article which the doctor criticizes. If we have unwittingly been made the dupes of dishonest men, the misfortune and not the fault is ours. The article came to us from an apparently reliable source, and, though not endorsing its views, we deemed it our duty to lay it before our readers.

THE statement in the November JOURNAL to the effect that the St. Mary's Eye and Ear Infirmary is the successor to a clinic held at the same place for a number of years has conveyed the impression that the Detroit Medical College Eye and Ear Clinique has been discontinued and its place taken by the former institution. Such an impression is, however, incorrect. The college clinique still continues, but has been removed to the college buildings on Woodward avenue. Neither has there been any change of surgeons in this clinique, as inferred, but the gentleman in charge since its organization still retains that position. The clinique is held daily from 11 to 12, but Tuesday is especially devoted to teaching and operations. J. J. M.

Memoranda.

The Maryland *Medical Journal* says that a new medical college is to be organized in connection with the University of South Carolina at Chapel Hill.

As pregnancy is the test of soundness in the individual, it may be of all her blood relations too, so is pregnancy often a crucial test of the soundness of pathological doctrine.—*Barnes.*

The specialist in medicine is one who, limiting his attention to one or more detached parts of his art, specially neglects other parts which are essential to the making of the true physician.—*Barnes.*

A new medical journal has reached us. It was born in Cairo, Ills., and lives for the benefit of the Southern Illinois Medical Association. It is published monthly, contains fifteen pages each month. Price, $1.50.

Dr. Martin Paine died at New York, Nov. 9th, 1877, aged 83. He was one of the originators of the medical department of the University of New York, and for thirty-six years was either an active or emeritus professor. His ability in writing large books was remarkable. It was largely through his influence that dissecting was legalized in the state of New York.

Prof. Paul F. Eve, M.D., died at his home in Nashville, Tenn., Nov. 5th, 1877, aged 71 years. He was widely known as a teacher of surgery and as an able surgeon, being celebrated for the number and variety of his capital operations. Numerous professional honors, including the presidency of the American Medical Association in 1857, attested the regard in which he was held by his fellow workers.

Wm. Wood & Co. announce the following works as in course of preparation: Domestic Hygiene, by George Wilson, M.D., sixth edition of Ringer's Therapeutics, Manual of Diseases of by Prof. C. Gerhardt, Elements of Therapeutics, by C. Binz, and translated by Edward S. Sparks, the remaining volumes of Ziemssen's Cyclopædia at intervals of two months, Diseases of Women, by D. Lloyd Roberts, M.D., A Complete Manual of Diseases of the Nervous System, by E. C. Seguin, M.D., Gegenbauer's Comparative Anatomy, Student's Guide to Diseases of Women, by Alfred L. Galabin, M.D., Dictionary of Medicine, by Richard Quain, M.D., eighth edition of Quain's Anatomy, second edition of Cohen's Diseases of the Throat, revised edition of Roscoe's Chemistry.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

ZIEMSSEN'S CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Vol. XVI. Diseases of the Locomotor Apparatus and General Anomalies of Nutrition. Pages, 1060. 1877. New York: William Wood & Co.

Prof. H. Senator contributes the articles on "Rheumatism," "Arthritis Deformans," "Rickets," "Malacosteon," "Diabetes Mellitus and Diabetes Insipidus." Prof. E. Seitz the chapters on the slight disorders from catching cold. Prof. H. Immermann the chapters on "General Disorders of Nutrition," "Anæmia," and "Corpulence," and Dr. Birch-Hirschfeld the chapters on "Scrofulosis," "Idiopathic Adenitis" and "Malignant Lymphoma."

Like all other writers Senator has nothing to offer in unraveling the obscurities that are connected with rheumatism. After quite a full discussion of the various methods proposed for treating it, he gives the following: So long as there is fever some sodic salt should be given in quantities of from five to ten drachms a day until the urine tends to becomes neutral or feebly alkaloid, as it usually does on the second or third day. The daily dose is now reduced, and only increased if the urine tends to become acid. Colchicum should also be administered, and opium, if the state of the bowels demand it. The affected limbs are to be properly supported and covered with a light linen sheet. If these measures are ineffectual to render the pain tolerable, carbolic acid may be injected under the skin of the affected joint or rubbed on its surface. If the inflammatory symptoms are violent, ice bags may be applied to the joints, or, this being impracticable, the joints may be supported by a plaster of Paris splint. Trimethylamine may now be tried, if other measures have failed. If the inflammation remains after the fever has left, blisters or leeches, etc., may be used to promote absorption. Iodide of potassium may now be substituted for the other alkaline salts. He believes that "gonorrhœal arthritis arises from the propagation of the inflammatory irritation from the urethra to the sacral plexus and spinal cord where it affects the trophic nerve fibres." The process by which rickets are developed is explained as follows: "Owing to digestive disturbances either pre-existent or brought about by improper feeding, lactic acid is generated in the system. This operates on the one hand as an irritant on the osteoplastic tissues, and on the other as a solvent on the calcareous salts deposited in the bones, promoting their elimination. At the same time the supply of earthy matter is reduced, either directly (as in cases of protracted lactation), or indirectly (as when diarrhœa carries off the lime salts from the intestines before they are absorbed)."

Other substances capable of irritating the osteoplastic tissues may exist of which we are ignorant. To their influence other cases not covered by the foregoing explanation are referred.

The chapter on the slight disorders caused by catching cold is very unsatisfactory.

Immermann's chapters on the general pathology of the general disorders of nutrition are somewhat prolix, but as they are based upon our knowledge of physiological nutrition they are very suggestive, and will repay the most careful study by young and old alike.

A similar remark applies with equal force to the article on anæmia. While discussing the treatment of anæmic marasmus Immermann advises the use of [illegible] oil. This too he does while regarding its action [illegible] of all fatty matters. His reasons are:

1. That it is more readily [illegible] other kind of fat, animal or vegetable.

2. Experiment has proved [illegible] mal membranes more quickly and [illegible] pounds, this property depending on [illegible] ture of biliary constituents, [illegible] digestibility.

3. Cod liver oil is more [illegible] Hence this oil is called for in [illegible]

supply of fatty matter is called for, but cannot be allowed owing to the inadequate secretion of bile and pancreatic juice.

After a full discussion he concludes that in the present state of our knowledge "The transfusion of small quantities of blood from the lamb to the human subject may, under certain conditions, be legitimate, but the transfusion of any considerable quantity of it is dangerous."

The chapter on chlorosis is one of the best in the volume. He defines chlorosis as a disease marked with a diminution of the hæmoglobin of the blood, almost exclusively confined to the female sex at puberty, often associated with anomalies in the development of the vascular system, as an abnormal narrowness in the calibre of the aorta and the great arteries generally, and the readiness with which it yields to large doses of iron. The differences between it and anæmia are forcibly stated. In its severest forms it is incurable, although greatly alleviated by appropriate treatment. Its mild forms yield readily to proper influences. As to prescribing marriage he says, "Medically we have no reason to recommend early marriage for such a purpose, and we may hope that both the public and the profession will gradually arrive at more decent opinions concerning the origin of chlorosis."

The chapter on "Corpulence" covers one hundred and thirty pages, and is on the whole the best article on the subject that we remember reading. Fat is considered in all its relations to the nutritive processes, and the means pointed out by which its accumulation may usually be kept within limits.

Birch-Hirschfeld's articles on scrofulosis are really supplementary to articles on phthisis, etc., in previous volumes. His historical survey of the steps by which our present views have been reached is very instructive. "Originally the term scrofulosis was confined to cheesy tumors of the lymphatic glands. Later on a number of inflammatory processes, especially in the skin and bones, were added, and the whole of the phenomena explained by a constitutional alteration of the organism. Still later phthisis pulmonalis was counted in with scrofulous affections. After the discovery of miliary tubercles, when cheesy deposits in the lungs were ascribed to miliary or infiltrated tuberculosis, this genetical view was applied to other cheesy products, especially to scrofula of the lymphatic glands, and scrofulosis became merged in tuberculosis.

When the origin of cheesy substance from non-tuberculous processes, especially of an inflammatory nature, was proved, the designation tuberculosis was limited to nodulated non-vascular heteroplastic formations. Most of the processes hitherto counted among the scrofulous ones were regarded as simply hyperplastic or inflammatory, the products of which tended to cheesy degeneration in consequence of some constitutional liability to disintegration.

When further experiments showed that tuberculosis was caused by the absorption of inflammatory products in a state of cheesy degeneration, an intimate etiological connection between scrofulosis and tuberculosis was recognized.

Lastly when the occurrence of tubercle in most deeper seated scrofulous affections was histologically demonstrated, the view that scrofulosis mainly depended on the appearance of tuberculous inflammation began to gain ground." He believes that the development of tubercle is connected with inflammations of a definite course. Such he calls those forms of exudative inflammation in which the removal of the products of inflammation is impeded or prevented.

Scrofulosis, on " the other hand, is a constitutional anomaly which shows itself by changes partly of an inflammatory, partly of a hyperplastic nature, excited in the tissues by a comparatively slight noxious influence—changes which are endowed with insufficient recuperative power, and are therefore prone to lapse into regressive metamorphosis and following thereupon into local tuberculosis."

Lack of space forbids further illustration of the course of thought pursued in the unfolding of this very common and perplexing affection, nor can we even allude to the remaining articles. The volume as a whole is one of the most important of the series. Its publishers have issued it in exactly the same style of its predecessors. The announcement is made that the accumulation of matter has compelled the publishers to increase the number of volumes to seventeen, all of the remaining ones to be about one thousand pages each.

THE EAR. ITS ANATOMY, PHYSIOLOGY AND DISEASES. A Practical Treatise for the Use of Medical Students and Practitioners, by Charles H. Burnett, A.M., M.D., etc. Illustrated. Cloth; pages, 616. 1877. Philadelphia: H. C. Lea.

The author says that in writing this work his object has been to give a clear, concise account of otology as it exists to-day, and thus indicate the direction in which further researches can be profitably carried on. The experience gained by a special study of this subject for seven years is freely recorded in connection with the experience and discoveries of all other workers in the same field.

One noticeable feature of this book is the relatively large space devoted to the anatomy and physiology of the ear. Thus of the works before the American student Rosa gives one hundred and three pages to the subject, Troltsch ninety one pages and Turnbull eleven, while Burnett gives one hundred and sixty-four pages.

It seems to us that even a larger space might have been profitably employed in view of the intricacy and importance of the subject. The day is past when any person can intelligently undertake the study of the diseases of any organ without a thorough comprehension of its entire anatomy and physiology.

Respecting the functions of the external ear the author gives the results of his observations and experiments begun in 1873. He found that in listening to various sounds, by altering the position of his auricle so as to relatively lengthen the external auditory canal, he could analyze various composite sounds. Thus, if he pressed the auricle back against the head he heard the higher sounds, whereas if he pushed the auricle outward and forward, the deeper partial sounds became more pronounced, and the entire composite sound became louder and deeper. From a careful study of these observations it is concluded "that the external ear forms a resonator for those tones having wave lengths the quarters of which are represented by the various depths of the column of air contained by the external ear." He further supposes that the entire external ear in all animals is adapted to strengthening the sounds uttered by them and their species.

Mendel's interesting experiments on the relative temperature of the external ear and rectum are approved. These are of sufficient importance to be carefully remembered. Normally the temperature of the rectum is 0.02° C. higher than that of the external auditory canal.

In cases of apoplectiform and epileptiform paralysis the temperature is higher than in the rectum. Sleep producing doses of chloral do not alter the temperature in the rectum, but they reduce the temperature of the external auditory canal from 0.04°-.1° C. This sets in from ten minutes to an half hour after the chloral is given and lasts until sleep is ended. Morphia also reduces the temperature of the external auditory canal from 0.1° to 0.45° C. Ice bags failed to reduce the temperature as morphia and chloral.

We wish it were possible to burn into the memories of every practitioner the anatomical relations of important structures to the middle ear. Thus, under the floor of the tympanic cavity is part of the jugular fossa, its roof is separated by only a thin partition of bone from the brain, the carotid canal is in its anterior wall. A similar partition of bone separates the mastoid cells from the lateral sinus of the dura mater. A branch of the facial nerve runs through the cavity. We have not space to complete the anatomical relations of the middle ear, but we have given enough to convince any thoughtful physician that a chronic inflammation of the middle ear must render its possessor in constant danger of death.

From these considerations alone it should be a rule of practice never to allow an ear to run a day after the suppuration can be stopped. How does the external ear cause wax and small foreign objects to escape from its external end? This question has greatly puzzled physiologists. It is suggested that the ear wax is formed mostly in the wide end of a detruncated cone, and that from its constant accretion it is constantly pressed outwards and away from the wall of the canal, so that at last it is found at the external end. Further, the skin of the canal seems to grow from within outward, like a finger nail. Thus scabs on the membrana tympana are gradually carried outward as the wax, also small foreign bodies that have become fixed on the walls of the meatus.

The directions for examining each part of the ear are plain and explicit. The directions for the use of several instruments are as clear as words can make them. The excellent illustrations greatly aid the text in this as in other important particulars. The several chapters on the diseases of the different portions of the ear are quite full and complete. A sufficient number of cases are given to illustrate but not to burden the otherwise brief description.

The principal portion of the book is devoted to a consideration of the inflammations of the middle ear. These he divides into catarrhal and purulent. Each of these is subdivided into acute and chronic, and the course and consequences are plainly stated. Under the head of "Unusual Diseases of the Middle Ear," he discusses its functional and organic disturbances.

About fifty pages are devoted to the diseases of the internal ear. In these we find a very satisfactory account of our unsatisfactory knowledge of these diseases. The final chapter treats of the methods of relieving and educating deaf mutes, and particularly deaf children.

On the whole we think the author has been more than ordinarily successful in compiling a volume for the instruction of students and the profession. Specialists will be interested to find scattered facts of recent origin compacted in a single volume.

LECTURES ON FEVERS. By Alfred L. Loomis, A.M., M.D, Professor of Pathology and Practical Medicine in the Med. Deps. Univ. of New York City, etc. Cloth; pages, 400. 1877. New York: Wm. Wood & Co.

These lectures were delivered during the winter of 1876–77 and phonographically reported by Dr. Wm. M. Carpenter. The author tells us that his custom has been to carefully read up the subject of each lecture, and trust to the stimulus of his class to to enable him to present a simple, intelligible statement of the essential features of his reading and experience. Twenty pages of bibliography are added to the lectures, and we are told that this was the pabulum on which the author fed to produce these lectures. Certainly it is good food and includes all the books, but few of the medical journal articles on fevers that have been published since 1850. As to the work thus accomplished, it partakes of the advantages and disadvantages of the methods under which it was performed. The directness of diction adopted to class room instruction to average students, moulded under the inspiration of several hundred medical students is quite sure to make a readable book. Nor are we disappointed in this case. Prof. Loomis is readable from title page to index. The interest in the story rarely flags, as the speaker summarily discourses of the most difficult and intricate questions with a few sentences expressive of his individual opinion.

In such a work we can scarcely expect anything new developed by the author, and in this we are not disappointed. Thirteen distinct fevers are discussed and classified as contagious, malarial or miasmatic contagious. Under the first he groups typhus fever, small-pox, measles, relapsing fever, scarlet fever and miliary fever. Under malarial he groups simple intermittent fever, simple remittent, pernicious fever, dengue and typho-malarial fever, and lastly under miasmatic contagious he places typhoid and yellow fevers. Respecting the cause of these fevers Loomis says that the exact nature of the morbific agents is unknown. The germ theory breaks down under clinical examination and the chemical theory is little better.

The call is for more light on the subject. Meantime the several poisons producing the several fevers remain unknown morbific agents governed by certain fixed laws of development and propagation. The classification adopted is the prevailing one at the present time, and is based upon the morbific agent producing the separate fevers. The style of the work is similar to that of the author's volume on the Heart and Lungs. Medical students and practitioners who desire a condensed account of fevers will find this book admirably suited to their wants.

TRANSACTIONS OF THE NEW YORK PATHOLOGICAL SOCIETY. Vol. Second. Based on the proceedings of the year 1875, and largely supplemented from the records of 1844 to 1877. Edited by Dr. John C. Peters. Cloth; pages, 299. Published for the Society by Wm. Wood & Co. Price, $3.00.

It gives us great pleasure to aid in introducing this volume to the profession. Unlike many books it is full of original observations worthy of careful study by every accurate thinking practitioner. It would be a great credit to the profession of America if it should so speedily exhaust the present edition of these transactions that the Society could publish another volume early in '78.

Of the twenty-three original members of this society in 1844, nine are still active members. An excellent table of contents and index add very largely to the value of these transactions. By their aid any particular case or report can be found with the least possible trouble and in the shortest time.

Of diseases of the intestines two hundred and eight cases are reported, of malignant diseases of the peritoneum, twenty-three cases, of diseases of the pancreas, thirteen cases, of diseases of the liver, fifty-eight cases, and of portal phlebitis, twelve cases. Appended to the latter are very interesting reports of several committees with reference to the matter. In fact we do not know of so good a presentation of this rare affection as is given in these transactions.

Of intussusception of the intestine thirty-five cases are reported, and to these is added Dr. H. B. Land's table giving the details of twenty-one cases operated upon. These alone are worth to any general practitioner more than the price of the book. The work of the editor is well done; cases are so altered as only to give the real facts, in the briefest terms. Always when it was possible the language of the original reporter is retained. The Woods have issued it in their usual excellent style, and it only remains for the profession to avail itself of the accumulation of these many workers through so many years.

LECTURES ON PRACTICAL SURGERY. By H. H. Toland, M.D., Professor of Surgery in the Med. Dept. of the University of California. Cloth; pages, 506. 1877. Philadelphia: Lindsay & Blakiston.

In his preface the author tells us that his students wanted him to write a book. He answered that his numerous engagements forbade his writing a book with such scientific accuracy as was necessary to compete with works already in the market. But this being impossible, he was willing to talk a book, viz., have a stenographer write his lectures as they were delivered in course at the College. Such being its origin each reader can readily imagine the characteristics of the book. Style familiar and easy, matter suited to the average undergraduate, topics those usually discussed by the chair of surgery, no subject fully and judicially considered, but all subjects touched upon with more or less wisdom and clearness, a fair sprinkling of egotism, frequently more prominent than agreeable to the average reader, antique ideas with reference to many subjects and imperfect ones respecting others. One feature to be commended is the *new* illustrations. Many of these are of great interest and very instructive. Works on surgery are so apt to borrow the exact plates of their predecessors that 'tis positively refreshing to get a new batch of plates.

The book is recommended to the attention of those who desire to know the character and extent of the surgical instruction at the Med. Dept. Univ. California and the book collectors who seek for everything published on the topic of surgery. The work is issued in the best style of the well known publishers.

DISEASES OF THE NASAL CAVITY AND VAULT OF THE PHARYNX. Translated from the German of D. Carl Michel, of Cologne on the Rhine by Mr. C. Jung, with an Introduction by Drs. Shurly and Yemans. Paper; pages, 110. 1877. Detroit, Mich.: C. Jung, 250 Randolph St.

This little work is the only one in the English language, so far as we are aware, exclusively devoted to a discussion of the diseases of the nasal and pharyngeal cavity. The frequency and annoyance of these diseases warrants a more careful study than that hitherto awarded them. Especially is this true in all our temperate zones. Hitherto owing to a variety of causes the treatment of these affections has fallen into the hands of charlatans. We trust that a reading of the little work before us will stimulate the general practitioner to a belief that these matters are not beneath his attention. After a brief introduction, in which the author describes the battery employed, he gives his method for examining the nares anteriorly and posteriorly. In the same connection he carefully describes the normal appearances of each part observed.

For examining the nasal cavity anteriorly he recommends the use of Voltolini's modification of Charrier's speculum. By a reflector he throws the sun's rays, or those of Brun's calcium light, into the parts to be examined. The same instruments are used in directing the application of the strong caustics as the galvano-cautery to ulcers, polypi, etc. To examine the posterior nares he uses a peculiar rhinoscope which enables him to bring every part into direct view. Then follows in order chapters on Acute Catarrh, Chronic Catarrh, Deformities of the Nasal Cavities, Ozœna, Syphilis in the Nasal Cavity, Nasal Polypi, Papillomata, Malignant Tumors, Epistaxis and Foreign Bodies in the Nasal Cavity, Ulcers of the Pharyngeal Vault, and Hypertrophy of the Pharyngeal Tonsil.

In a short chapter he considers "the consequences of obstruction in the nares and pharyngeal vault," "changes in speech and voice caused by tumors in the pharyngeal vault," "nasal speech," "relation of deafness to the diseases described." In the treatment of chronic nasal catarrh, the author recommends the use of insufflations of nitrate of silver in talc, or better, the use of the galvano cautery. The last agent he employs almost exclusively in the removal of polypi, etc., and his success proves the wisdom of his choice. The translation is made with care. The work is well worth a place in every medical library.

CUTANEOUS AND VENEREAL MEMORANDA. By Drs. H. G. Piffard and G. H. Fox. 1877. New York: Wm. Wood & Co. Price, $1.00.

The object of this little work is to meet the needs of such students as are unable to procure larger works on the same topics. In short the authors have endeavored to compress the substance of the larger works into a smaller space. This they have succeeded in doing as well as it can be done. It should be stated, however, that this is not an abbreviation of works on cutaneous disease in general, but of Dr. Piffard's large volume in particular. Still it is a fair compilation and will doubtless meet with an abundant patronage by the buyers of condensed and abbreviated medical literature.

PERSONAL APPEARANCE AND THE CULTURE OF BEAUTY, WITH HINTS AS TO CHARACTER. By T. L. Lozinskey, M.D., Ph. D. Cloth; pages, 195. 1877. Philadelphia: Allen, Lane & Scott. Price, $1.50.

Evidently this book was designed for popular reading. Very much of its matter and spirit are entirely within the scope of a rational care for the human body. Personal appearance and the culture of beauty are inextricably united to a sound physiological life. "Men do not gather figs of thorns nor grapes of thistles," no more can beauty be developed from a life that constantly violates all physiological and moral laws. If the little work before us shall succeed in directing attention to this matter it will have done a lasting service to the race.

THE MORPHOLOGY OF THE SKULL. By W. K Parker, F. R. S., Hunterian Professor Royal College of Surgeons, and G. T. Bettany, M. A. B. Sc., Shuttleworth Scholar, Cain's College, Cambridge. Cloth; pages, 388. 1877. London: Macmillan & Co. Price, $3.50.

This is the first work of its kind ever publishsd. Never before have we had a sketch of the history of the skull in the principal types of vertebrates. Huxley's terminology has been amplified so as to make all the nomenclature consistent. As far as possible original drawings have been used to illustrate the text. At the end of the several chapters is placed a summary, so as to facilitate a remembrance of facts. A capital index at the end of the volume permits a ready reference to any topic considered. None but a genuine student need expect either to be interested or profited by this work. All lovers of morphological anatomy will find in this an abundant feast of new facts and conceptions that will aid them greatly in their individual studies. The publishers have issued it in a style similar to Foster's Practical Physiology, and so rendered it suitable for use in the laboratory.

WALSH'S PHYSICIAN'S COMBINED CALL BOOK AND TABLET. 1878. Ralph Walsh, M.D, 326 C Street, Washington, D. C. Price, $1.50.

When the first edition of this little book was published we pronounced it the "neatest and most convenient thing of the sort we had ever seen." Never since then have we had any reason to change our opinion until the present edition was placed before us. This is, if possible, an improvement on its predecessors. The tables, lists of doses, antidotes for poisons, tests for urine, tables showing the relations of metrical weights and measures to the weights of the U. S. Pharmacopœia, etc., are marvels of condensation and fitness for the particular purpose at hand. An erasable tablet on the inside of first cover permits the recording of any ordinary memoranda for each day. The call list is so arranged as to permit any record to begin at any date, and a blank leaf is provided for special notes. The whole is printed on the best paper and bound in the most convenient shape for carrying in side coat pocket.

WALSH'S PHYSICIAN'S HANDY LEDGER. 1878. Paper; pages, 300. Published by Ralph Walsh, M.D., 326 C Street, Washington, D. C.

This is intended to be a companion to the author's combined call book and tablet. It is so arranged that one page shows at a glance all the charges or payments of any or every sort, of any patient at any time during the year. The size of the pages is five inches by eight. It is an admirable companion to the call book, and its price places it within the reach of all.

WOOD'S PHYSICIAN'S VADE MECUM AND VISITING LIST. Arranged and Prepared by H. C. Wood, M.D. 1877. Philadelphia: J. B. Lippincott & Co. Price, $1.50.

This is a new aspirant for professional favor. Butler's and Lindsay & Blakiston's visiting lists have for years annually flowed out from Philadelphia. The one before us resembles the others in size and general appearance. It gives the decimal system of weights and measures, methods of producing artificial respiration, the various poisons, the symptoms of poisoning by each, and the specific troatment, lists of doses of the several medicinal agents, a table for calculating the duration of pregnancy, a chapter on the use of electricity and diagrams giving the various motor points of the entire body. Of the visiting list proper one page is devoted to the name, address, and day of the week at which the visit or visits were made. As no dates are affixed, the record can begin and end at the user's convenience. The opposite page is partially blank and partially occupied by a blank form for recording the cash receipts for the week. Space is left for recording obstetrical engagements, births, deaths, and the rendering of accounts. Also some blank leaves for miscellaneous purposes. On the inside of the first cover is a tablet for recording the daily engagements. The whole is bound in substantial form, and will, we doubt not, be largely patronized by those desiring such a work.

THE SANITARY CONDITION OF PORTLAND, ME. By Dr. F. H. Gerrish. Paper; pages, 30. Reprint from Transactions of the Maine Medical Association.

This is a close criticism of the methods oy which the health of the city of Portland, Me., is looked after. The vital statistics are as incorrect as in other places and the spelling as bad. He gives some specimens of the latter as follows: Of thirty-seven items on one page, taken at random, half were spelled incorrectly, viz., "hart desires, applex, warme fever, softening braine, parlyese, inflem., bluder, pneumonear." Still-born was placed opposite the name of a person who died at seventy four years, etc. The sewerage is shown to be defective in plan and execution. The water supply is defective in amount and bad in quality. The doctor finds much in each of these elements of death better fitted to transport the denizens of that city to the other world than to preserve their health and increase their efficiency in this. It is to be hoped that this report will not only awaken the city of Portland to do its duty, but also other towns and cities which are in equally as bad a blight.

THE VIRUS OF VENEREAL SORES—ITS UNITY OR DUALITY. By Freeman J. Bumstead, M.D Paper; pages, 10. 1877. Reprint from Transactions of International Medical Congress.

FIRST ANNUAL REPORT OF THE CEREAL PRODUCTS OF THE STATE OF MICHIGAN. 1876–77. Paper; pages, 39. Lansing: W. S. George & Co.

REPLY TO DR. J. MARION SIMS' PAMPHLET ENTITLED "THE WOMAN'S HSSPITAL IN 1874." By his former Colleagues, Drs. E. R. Peaslee, T. A. Emmet and T. G. Thomas. Paper; pages, 24. 1877. New York.

NOTE ON THE ADMINISTRATION OF PHOSPHORUS. By Edward R. Squibb, M.D. Paper; pages, 15. 1877. Reprint from Transactions of the Amer. Pharmaceutical Association·

This note is worth the careful study of all physicians and pharmacists.

CHOLERA—THE LAWS OF ITS OCCURRENCE, NON-OCCURRENCE, AND ITS NATURE. By C. Spinzig, M.D. Paper; pages, 50. St. Louis, Mo.

The dwellers of cholera regions will be interested in the study of this essay.

BUREAU OF EDUCATION.—Circular 1, 1877. Reports on the System of Public Instruction in China. Circular 2, Reports on the Systems of Public Instruction in Finland, the Netherlands, Denmark, Wurtemburg and Portugal, with a Paper on the University of Leipsig. Also an account of the International Conference on Education held at Philadelphia, July 17–18, 1876.

THE COLUMBIA HOSPITAL AND LYING-IN ASYLUM. By a Citizen of Washington, D. C. 1877. Paper; pages, 118. Reprint from Nov. No. Richmond and Louisville Med. Journal.

WHAT ANÆSTHETIC SHALL WE USE? By J. J. Chisholm, M.D. 1877. Paper: pages, 23. Baltimore, Md.

WHAT IS THE COMPARATIVE AND THERAPEUTIC ACTION OF FREE PHOSPHORUS AND HYPOPHOSPHITES? By Samuel R. Percy, M.D. Paper; pages, 23. Reprint from Transactions N. Y. State Medical Society. 1877.

THE GENERAL SUBJECT OF QUARANTINE WITH PARTICULAR REFERENCE TO CHOLERA AND YELLOW FEVER. By J. M. Woodworth, M.D. 1877. Paper; pages, 13. Reprinted from Transactions of International Medical Congress.

CHOLERA INFANTUM—TREATMENT OF COLD STAGE. By E. F. Wells, M.D. Paper; pages, 5. Reprint from Cincinnati Lancet and Observer.

THE SAFETY OF SHIPS AND OF THOSE WHO TRAVEL IN THEM, By John M. Woodworth, M.D. Paper; pages 8. Reprint from Vol. 3, Transactions of Amer. Public Health Association,

A CASE OF PUERPERAL SEPTIC FEVER. Reported by Geo. J. Northrop, M.D., with some Remarks on the Relations of the Medical Profession to the People by Dr. H. B. Baker. Reprint from Det. Med. Jour., Sept. 1877.

VALUE OF MEDICAL ORGANIZATIONS. An Address before the Alumni Association of Jefferson Med. College, 1877, by Wm, B. Atkinson, M.D. Paper; pages, 20. Price, 10 cents.

An interesting and wholly characteristic address.

CASE OF TUBERCULAR DROPSY OF THE ABDOMEN SIMULATING OVARIAN TUMOR. By T. A. McGraw, M.D. Paper; pages, 3. Reprinted from the Archives of Clinical Surgery. 1877.

CASE OF OVARIAN TUMOR IN A CHILD TWELVE YEARS OF AGE. By T. A. McGraw, M.D. Paper; pages, 2. Reprint from Toledo Medical Journal.

VERATRUM VIRIDE—ITS PHYSIOLOGICAL EFFECTS AND THERAPEUTIC USES. Paper; pages 8. By John S. Lynch, M.D. Reprint from Trans. Medical and Chirurgical Faculty of Maryland. 1877.

DEFECTS OF HEARING AND OTHER EVILS THE RESULT OF ENLARGED TONSILS. By A. W. Calhoun, M.D. 1877. Paper; pages, 12. Reprint from Transactions of the Medical Association of Georgia.

AIKEN AS A HEALTH STATION. By W. H. Geddings, M.D. 1877. Paper; pages, 31. Reprint from Charleston Medical and Surgical Journal.

BIENNIAL REPORT OF THE MOUNTAIN SANITARIUM FOR PULMONARY DISEASES. Ashville, N. C. By W. Gleitsmann, M. D. 1877. Paper; pages, 8.

THE USE OF THE OBSTETRIC FORCEPS IN ABBREVIATING THE SECOND STAGE OF LABOR. By Edward S. Dunster, M.D. Paper; pages, 24. 1877. Reprint from Transactions of Mich. State Medical Society for 1877.

PUERPERAL FEVER. By DeWitt C. Wade, M.D. Paper; pages, 8. 1877. Source same as above.

THE CONSERVATIVE VALUE OF ARTIFICIAL INDUCTION OF PREMATURE LABOR. By Wm. F. Breakey, M.D. Paper; pages, 25. 1877. Same source as above.

ELECTRICAL CONDUCTION. By Prof. R. C. Kedzie. Paper; pages, 8. 1877.

Experiments here described show that conduction of electricity is through the mass of the conductor and not by surface action, such as is exhibited in the statical conditions of electricity.

A PAPER ON SURGERY OF THE HAND. By E. T. Easley, M.D. Paper; pages, 25. Reprint from Richmond and Louisville Med. Jour.

THE OPENING ADDRESS BEFORE THE MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND. By Christopher Johnston, M.D. Paper; pages, 114. Reprint from the Transactions of the Society. 1877.

Meteorological Report of Detroit for October, 1877.

BY C. HENRI LEONARD, M. D., OBSERVER FOR STATE BOARD OF HEALTH.

A WARM, WET MONTH.

BAROMETER.—Highest, 30.321; lowest, 29.534; range, 0.787; daily average, 29 960.

THERMOMETER.—Highest, 84 (this on the first); lowest, 34 (this on the 22d); range, 50; daily mean, 53 8. This has been the *warmest* October in years; last year the daily average was 46.2; in 1875, 46 7; in '74, 51.3; in '73, 47.9; in '72, 49.1. The highest maximum temperature in previous years was 78°, six degrees lower than the highest October temperature this year. The lowest October temperature was in 1873; then 22 was recorded.

WINDS.—Prevailing direction was, as last month, S. W. Total number of miles traveled, 5,537; 1,568 miles more than last month.

CLOUDS.—Clear days, 7; a loss of 5 from last month. Cloudy, 14; an increase of 10 over last month. Rainy, 12; an increase of 4 over last month.

RAINFALL.—Total precipitation, 4.72 inches. As last month was the lowest September rainfall, to make matters even this October's rainfall was the *greatest* in the past five years. On a single day (the 19th) we had as much precipitation as is usual for the *whole* month. On this date 2.02 inches of water fell. In '76 the total precipitation for the month was 3.55; in '74, 0.78 *of an inch*: in '73, 2.60 inches; in '72, 1.60 inches. The farmers will certainly have no complaint of "winter's setting in dry."

MOISTURE.—Greatest amount present on the 2d; then 6.75 grains were found. The "relative humidity" at this date was 72 per cent. On the 26th, when the "relative" was 100 per cent., or complete saturation, there were but 2.64 grains present, thus prominently showing the total independence of the two.

OZONE—Was very deficient this month; the highest discoloration noticed was but 1 of the scale (and this but *once in the entire month*); this was after a twenty-four hours' exposure on 10th. "Traces" were only found on most of the other dates.

HAZE—Was noticed at 5 observations.

FOGS—At 5 also.

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